



PB93-175925

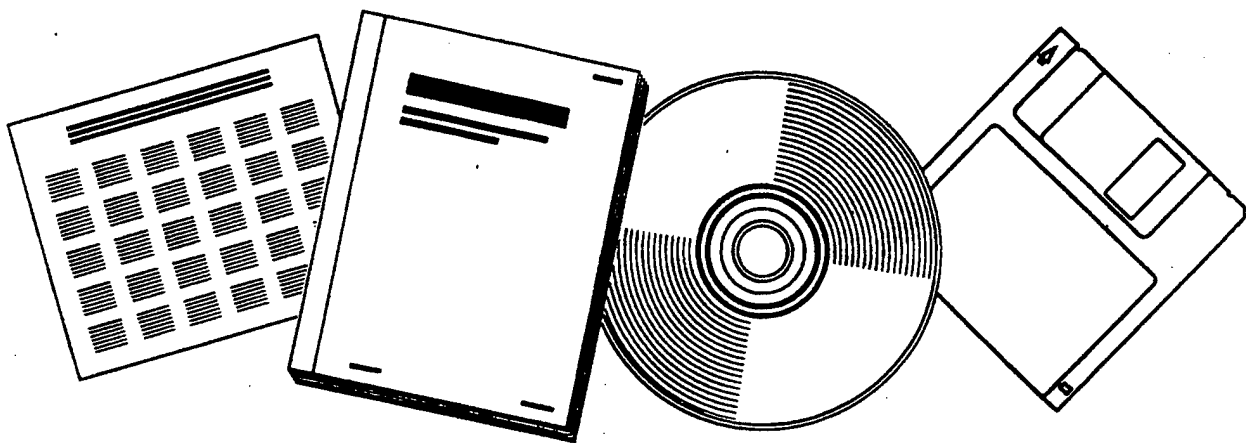
NTIS
Information is our business.

TRANSCRIPTS OF REGIONAL HEARINGS ST. LOUIS, MISSOURI ANNEX L TO ADJUSTING TO THE DRAWDOWN REPORT OF THE DEFENSE CONVERSION COMMISSION

DEFENSE CONVERSION COMMISSION
WASHINGTON, DC.

DTIC QUALITY INSPECTED 2

AUG 92



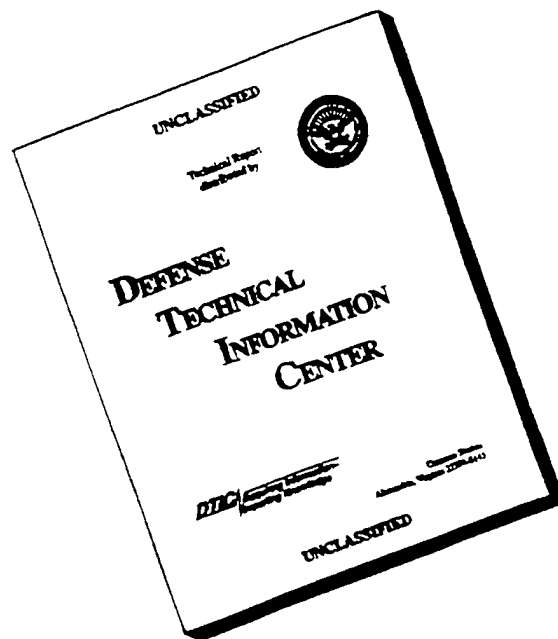
U.S. DEPARTMENT OF COMMERCE
National Technical Information Service

DISTRIBUTION STATEMENT A

Approved for public release;
Distribution Unlimited

19970502 038

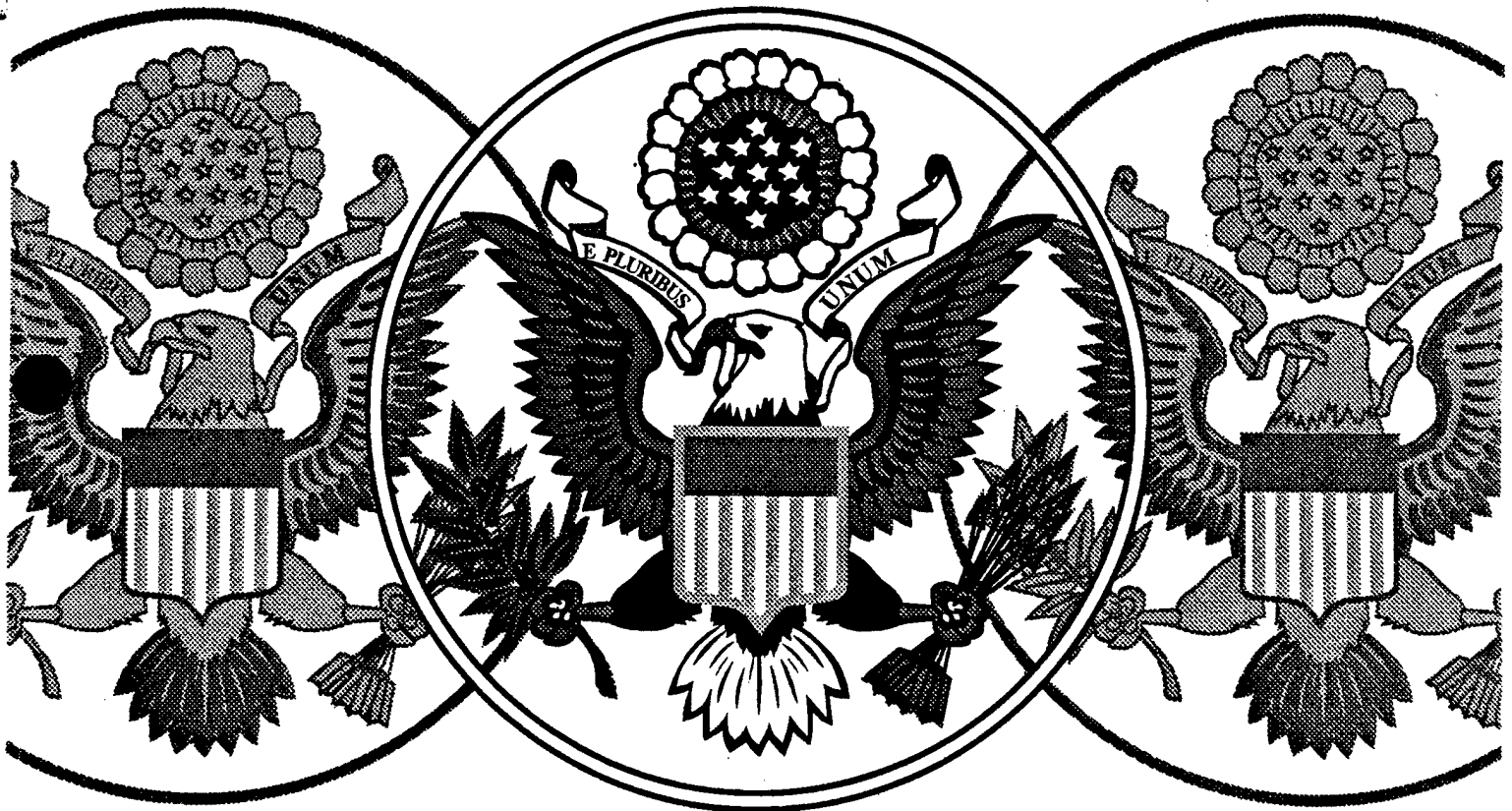
DISCLAIMER NOTICE



**THIS DOCUMENT IS BEST
QUALITY AVAILABLE. THE
COPY FURNISHED TO DTIC
CONTAINED A SIGNIFICANT
NUMBER OF PAGES WHICH DO
NOT REPRODUCE LEGIBLY.**

Transcripts of Regional Hearings

St. Louis, Missouri



Annex L to
Adjusting to the Drawdown
Report of the
Defense Conversion Commission

REPRODUCED BY
U.S. DEPARTMENT OF COMMERCE
NATIONAL TECHNICAL
INFORMATION SERVICE
SPRINGFIELD, VA 22161

BIBLIOGRAPHIC INFORMATION

PB93-175925

Report Nos: none

Title: Transcripts of Regional Hearings, St. Louis, Missouri. Annex L to Adjusting to the Drawdown. Report of the Defense Conversion Commission.

Date: 20 Aug 92

Performing Organization: Defense Conversion Commission, Washington, DC.

NTIS Field/Group Codes: 96A*, 74E

Price: PC A12/MF A03

Availability: Available from the National Technical Information Service,
Springfield, VA. 22161

Number of Pages: 272p*

Keywords: *Defense budgets, *Drawdown, *Public hearings, Defense economics, Reduction, Economic impact, Regional analysis, Unemployment, Training programs, Federal assistance programs, *Saint Louis (Missouri), Department of Defense.

Abstract: The document provides a complete transcript of the Defense Conversion Commission Regional Hearings that took place in St. Louis, Missouri on August 20, 1992.

DEFENSE CONVERSION COMMISSION

PUBLIC HEARING

August 20, 1992

St. Louis, Missouri

OFFICIAL RECORD OF HEARING PROCEEDINGS

COMMISSIONERS PRESENT:

David J. Berteau, Chairman

Charles A. May, Jr., Commissioner

Carl Dahlman, Commissioner

L. Paul Dube, Commissioner

Michael Knetter, Commissioner

Douglas Lavin, Commissioner

C O N T E N T S

	PAGE
Opening Remarks Chairman Berteau	5
Presentation of Denny Coleman Chairman, St. Louis Economic Adjustment and Diversification Committee	6
Presentation of Jennings Woolridge Regional Director, Communications Workers of America	7
Presentation of James Caldwell McDonnell Douglas Corporation	10
Presentation of Glenn Lawrence Office of the Governor of Indiana	15
Presentation of F. Thomas Stark President, Visionaire Corporation	19
Presentation of Mr. Cassel Williams President, District 837, IAMAW	22
Presentation of Rose Kemp Regional Administrator, Women's Bureau, Department of Labor	25
Presentation of Ruth Margolin Director, Women's Center, University of Missouri at Kansas City	28
Presentation of Elmer Dapron Cornucopia Communications	32
Presentation of Gerald Ide Union Steward, McDonnell Douglas	36
Presentation of Sister Susan Jordan Midwest Coalition for Responsible Investment	39
Presentation of Dr. Fredric Raines Professor of Economics, Washington University	42

Presentation of James Gilbert President, Maximum Rehabilitation Consultants	47
Presentation of Marjorie Reinhart Volunteer, Economic Conversion Project	51
Presentation of Margaret Gilleo St. Louis Economic Conversion Project	53
Presentation of Joan Botwinick Adequate Housing for Missourians	56
Presentation of Bud Deraps Private Citizen	60
Presentation of Phillip Sgroi Private Citizen	62
Presentation of Kent Machovec Private Citizen	66
Presentation of Janet Becker Private Citizen	72
Closing Remarks Chairman Berteau	75
Presentation of Betty Davis Private Citizen	76

TAPE TRANSCRIPTION

1
2
3 MR. HANLEY: Before we begin them officially, I would like to make one
4 or two administrative announcements.

5 First, these are public hearings. There will be a transcript available as soon
6 as we can produce it for you. We make those from audio tapes, so it takes a day or two.
7 But if you would like to write the Commission for a transcript, please feel free to do so.
8 Anybody who wants the address of the Commission, it's available from the people at the
9 desks outside. That transcript, incidentally, will be available in large print and in braille,
10 if you specify that is what you would like.

11 We're on a tight schedule today. We would love to be able to hear
12 everyone at great length, but, because we have so many people who want to testify, we're
13 going to have to limit your testimony to 10 minutes, please, so that leaves a minute or
14 two at the end for the Commissioners to discuss your thoughts with you.

15 If you have written testimony, a written version of your testimony, and you
16 would like to save a little more time, I might suggest that you give us the written copy
17 and then just orally give the Commission the highlights of it so that that will stimulate
18 some further conversation.

19 The Commissioners with us, I would like to just introduce them quickly.
20 Mr. David Berteau from the Department of Defense, third from your right. And then,
21 right to left, Dr. Carl Dahlman from the Department of Defense, Mr. Paul Dube from the
22 Department of Defense, Dr. Michael Knetter from the Council of Economic Advisers in
23 the White House, Mr. Douglas Lavin from the Department of Commerce, and Mr. Charles
24 May from the Department of Defense.

25 Without further ado, I would like to turn the proceedings over to Mr.
26 Berteau to open them.

27 CHAIRMAN BERTEAU: Thank you, Paul.

28 Again, I would like to thank you all for being here today. I would like to
29 thank both the City and the County of St. Louis for hosting us and allowing us to come in
30 and use the facilities and set it up like this.

31 The Defense Conversion Commission was established by the Department of
32 Defense to look at a series of issues associated with the defense reductions going on
33 throughout the nation today and to issue a report to the Secretary of
34 Defense by the end of this year on our findings and recommendations.

35 We are tasked by him to do three things: We are tasked to look at the
36 impact on the U.S. economy of the defense reductions, both in terms of people and in
37 terms of dollars. We are tasked to look at the appropriate federal programs for retraining
38 of the people who are being laid off, both military and civilian. And we are tasked to
39 look at the kinds of things that the federal government should be doing to assist industry
40 in making the transition from being defense-dependent into being more commercially
41 viable.

42 We have been here in St. Louis since yesterday morning. We visited a
43 number of companies. We have met with the Economic Development Council and the
44 RCGA. We have had a variety of inputs from a variety of sources. We scheduled the

1 public hearing to make sure that we heard from everybody who felt that they had
2 something to contribute to our efforts, both in terms of the nature of the problem and in
3 terms of the possible solutions that we should undertake to solve those problems.

4 We came here to listen, because we want to make sure that we, as we go
5 about the work of establishing our findings and recommendations, base that work, to some
6 degree, on the actual stories of real people who are trying to deal with the situation, not
7 just what it looks like from Washington, in terms of the numbers.

8 Pursuant to that, we are taking a number of trips around the country to
9 places where the defense industry is a fairly large piece of the economy. St. Louis is
10 certainly one of those areas. And what we're here for is to hear from the folks today who
11 are actually living through it and who have something from their experience and their
12 stories to tell us, so that we can take those back and include that as part of our thinking
13 before we come to conclusions and our findings.

14 We are looking for practical solutions that can actually be implemented
15 rather than just broad philosophical discussions about what ought to be. And to that
16 notion, we're trying to look at what programs are in place today and what ought to be
17 done to make those programs better for the people who are trying to use them to help
18 themselves through this process, as the defense draws down.

19 I would point out that, at least from where we sit, it looks like this is a
20 fairly permanent change. The Cold War is over. The amount of resources that the nation
21 has to spend on defense over the next decade is going to be significantly less than it was
22 in the last decade.

23 So we have to take this from a long-term view, not just from a "We'll solve
24 this problem in the next three months." That's the way in which we're trying to focus our
25 efforts. Not that we're ignoring the short-term impact, because you have to pay attention
26 to both the short-term and the long-term impact in order to really solve the problems.

27 We have a long list of witnesses today. I would echo what Mr. Hanley
28 said in his opening remarks. The extent to which each witness can just summarize their
29 input, particularly if you do have written input, that would permit us some time to ask a
30 couple of questions and make sure that we get out of it the maximum benefit from what
31 you all have to offer today.

32 We will try very hard to stick to the schedule. I thank you in advance for
33 your patience and also for your understanding of the folks who will come after you in
34 adhering to your part of the schedule.

35 So let me ask if any of my fellow Commissioners have anything to add. If
36 not, we'll begin with the first witness.

37 (No response.)

38 CHAIRMAN BERTEAU: All right. We are ready.

39 MR. HANLEY: The first witness for this afternoon is Mr. Denny Coleman,
40 the executive director of the St. Louis Economic Council.

41 CHAIRMAN BERTEAU: Mr. Coleman, we want to welcome you. You
42 have been of some assistance to us already. We look forward to your brief remarks this
43 afternoon.

44 MR. COLEMAN: Thank you very much.

1 I want to just, officially, on behalf of the St. Louis Economic Adjustment
2 and Diversification Program, thank and welcome Chairman Berteau and the rest of the
3 Defense Conversion Commission here. I think it is obvious to all of us in this room and
4 many outside of this room, and literally thousands of people and hundreds of businesses,
5 just how important an issue this is to the St. Louis community now and will be for at least
6 the next decade. And we appreciate your interest and concern in the subject here locally.

7 I want to just briefly make a couple of comments here before we get into
8 the rest of the public's presentation, and one is to thank the Commission and inform the
9 rest of the public here that our Economic Adjustment Committee had an opportunity to
10 meet for nearly two hours with the Commission this morning to discuss the programs, the
11 projects, and the research findings that we have been involved with over the course of the
12 last two years.

13 I can just tell the rest of the public here that I think what we have in this
14 Commission is a group of very dedicated people who really and truly are interested in
15 what is happening to help frame policy and programs over the next decade, not just for St.
16 Louis, but for the entire country. So I think we're going to have an excellent audience for
17 your discussions.

18 What we have prepared here for the rest of the audience is a very brief
19 outline of some of the programs that have been put in place to date, some of those that
20 are in process, and a few phone numbers for any of you to call who might be interested in
21 follow-up here at the local level. Whether you are an employee or a business owner, we
22 have some information in here that you might find relevant.

23 And I appreciate being able to say that to all of you, because there are
24 many, many new faces here for us, as well as for our friends from Washington who are
25 here to listen to your testimony. So we want to use this opportunity to provide you with
26 some information as well.

27 I just want to say that I think this public hearing, in that respect, fits into
28 our framework of our local program, too, because myself and other members of our
29 committee and staff are here to learn from you as well. We want to be as inclusive, at a
30 local level, as possible. We know we can't reach everybody all of the time, and we're
31 interested in doing that and hearing your comments and concerns as well. We invite you
32 to be part of the St. Louis effort as well as voicing your opinions to our federal
33 representatives.

34 Again, I just want to thank the Commission. I want to thank the assistance
35 that the Department of Defense has provided to us already, in terms of the job retraining
36 dollars, as well as the strategic planning assistance that they have done. And we look
37 forward to a relationship in the future as good as it has been in the past, to the benefit of
38 the St. Louis region and everyone in the region, both whether you're an employee or a
39 business owner. We think everyone is equally involved in this process and important to
40 the success that we hope to achieve in the future in dealing with these cutbacks.

41 Again, thank you very much.

42 CHAIRMAN BERTEAU: Thank you, Mr. Coleman.

43 Next witness.

44 MR. HANLEY: The next witness is Mr. Jennings Woolridge, the northern

1 area director of the Communications Workers of America.

2 Mr. Woolridge.

3 CHAIRMAN BERTEAU: Mr. Woolridge, welcome.

4 MR. WOOLRIDGE: Thank you very much.

5 CHAIRMAN BERTEAU: We look forward to hearing from you.

6 MR. WOOLRIDGE: I'm here as a representative more of the organization
7 known as Campaign for New Priorities than I am as an international labor representative.
8 I've been serving for the past several months on the Campaign for New Priorities and have
9 met a number of times here in St. Louis with our various organizations consisting of
10 labor, citizen action groups, community, and religion. And we have talked about
11 economic conversion in all of those meetings, as that's the primary purpose of our
12 organization's existence.

13 Our committee realizes that we cannot and should not expect the
14 government to delete all military and defense spending from the national budget; however,
15 we do believe that there is justification for a drastic change in which the dollars could be
16 converted better to domestic needs.

17 Since the end of the Cold War, we in the United States are no longer on
18 the brink of war with other major powers around the globe. We don't need to maintain a
19 military presence in Europe and the Far East or provide a national security force for the
20 entire world. There are many crucial needs here in the United States that need to be met.

21 Jobs for the unemployed, which includes young people coming into the
22 labor market, could be provided through converting a large portion of the military defense
23 spending to the use of private sector industry, to retool defense industry plants into civil
24 industry uses.

25 For instance, the calstart in California where they are building electric cars
26 for domestic consumer uses; the Sword and Plowshares [sic] grant here in St. Louis where
27 they are studying ways and means of converting materials used for aircraft into bridge
28 building materials; converting military aircraft plants, land armament and shipbuilding
29 plants into builders of light rail trains, tracks, and steel for bridges instead of bringing
30 those goods into the United States from foreign countries and made by foreign labor.

31 Many of the products consumed in the United States could be produced
32 domestically, as they were 40 years ago, by our own labor force, if there was sufficient
33 incentive for investors to start manufacturing again in the United States. The technology
34 is available, and the training of our own labor force could be funded or partially funded
35 by the use of federal funds that are now being used in the defense budget.

36 Within most states, there is a great need for building and rebuilding the
37 infrastructure. Bridges, roads, airports, schools, and other training facilities are needed.
38 Much of the funding now could be provided through the conversion of some of the
39 defense fund dollars into domestic use. Each state could administer many of their own
40 programs if sufficient funds were made available. The social and welfare needs go unmet,
41 to a large degree, in many states because sufficient funds are not available to support their
42 needs.

43 Here in the State of Missouri, there is a great need for additional
44 caseworkers and social service workers. The present staff cannot meet the needs and find

1 themselves so overloaded with cases that there is a serious burnout problem among
2 dedicated, committed professionals. Those working in the Department of Social Services
3 in Missouri are paid salaries far below other professionals in private industry, which
4 contributes to the problem of understaffing.

5 Teachers are being furloughed and laid off in many school districts because
6 of a loss in revenue that will not permit the district to maintain their past level of staffing.
7 State budgets could be bolstered by converting the defense spending to states to help meet
8 these crucial needs in those areas of the infrastructure mentioned earlier.

9 Our committee, the Campaign for New Priorities, endorses the concept of
10 reducing the military defense budget without reducing the overall federal budget,
11 converting much of the defense budget to a domestic needs budget. We do not support a
12 tax cut as a result of reducing the military defense spending but rather a transfer of these
13 funds, by congressional or executive action, to domestic use. We urge the President to
14 release funds already allocated for conversion in order to start the process that we're
15 talking about.

16 If there is a peace dividend to be disbursed, then it should be used to help
17 build our faltering U.S. economy. We believe and support the following
18 recommendations: One, a national, comprehensive health care plan could be partially
19 funded by monies made available by converting some of the military defense budget to
20 domestic use. Two, the defense experts say as much as \$150 million [sic] could be cut
21 from the military defense budget over the next five years and converted to domestic
22 needs, and we support that idea.

23 I thank you for your time.

24 CHAIRMAN BERTEAU: Thank you, Mr. Woolridge. Let me make sure I
25 get a clarification from you and then ask if any of my other Commissioners have any
26 questions they want to ask you.

27 You mentioned sufficient incentives to invest in restoring capability, and
28 then you talked about funding coming from defense budget dollars in order to do that.

29 MR. WOOLRIDGE: Yes, sir.

30 CHAIRMAN BERTEAU: Are there any other incentives that your
31 campaign envisions as needed or appropriate for getting the investment in this restored
32 domestic production capability that you talked about?

33 MR. WOOLRIDGE: We haven't looked into that in great detail; however,
34 some of those incentives could be the training of an available work force and having
35 qualified people that would be there for that industry to start up and get on with its work.

36 CHAIRMAN BERTEAU: When you talked about reducing the defense
37 budget, essentially shifting it into other areas of the federal budget, would you also then
38 redistribute that regionally, or would that, in your proposal, would that be tied somehow
39 to where the defense dollars were being spent?

40 MR. WOOLRIDGE: I think it would have to be done regionally because,
41 in many cases, states that are in great need of assistance may not have a defense industry
42 in their particular area.

43 CHAIRMAN BERTEAU: So you wouldn't restrict it to just places that are
44 affected by the defense drawdown?

1 MR. WOOLRIDGE: No. Certainly, a fairness of distribution would be
2 expected there so that everybody could benefit from that.

3 CHAIRMAN BERTEAU: All right. Thank you for clarifying that.

4 Any questions?

5 (No response.)

6 CHAIRMAN BERTEAU: Thank you very much.

7 MR. WOOLRIDGE: Thank you, sir.

8 MR. HANLEY: Thank you, Mr. Woolridge.

9 Our next witness is Mr. James Caldwell from McDonnell Douglas
10 Corporation.

11 MR. CALDWELL: Thank you, Mr. Hanley, Mr. Chairman.

12 CHAIRMAN BERTEAU: Mr. Caldwell, welcome. You obviously came
13 prepared.

14 MR. CALDWELL: Yes, sir. I do have written testimony which is
15 available to the audience to the extent that we have copies. I would like to hold the
16 distribution to the end, if we would.

17 In the interest of saving time, I did prepare a presentation which
18 summarizes the basic background that we have and our recommendations. I thought that
19 might save the time. We'll go through that in about 10 minutes, and then that gives some
20 time for questions at the end. I won't cover all the programmatic. That data is available
21 in the written testimony, so we'll leave that to you to digest later.

22 CHAIRMAN BERTEAU: That's very appropriate. Thank you.

23 MR. CALDWELL: I'm Jim Caldwell, director, new business development,
24 from McDonnell Aircraft Division of McDonnell Douglas Corporation, our largest defense
25 sector of the corporation.

26 This is a very brief outline of our discussion. I first want to profile the
27 corporation. I will discuss the international market as a very critical element of --

28 A PARTICIPANT: Will you use a microphone, please?

29 MR. HANLEY: Yes. Excuse me just a second. I think this is not taped
30 down, in which case we can provide you a little slack here.

31 MR. CALDWELL: Just pick it up? Okay.

32 MR. HANLEY: And you can just pull it --

33 MR. CALDWELL: How is this? Can you hear me? Is that better?

34 A PARTICIPANT: No.

35 A PARTICIPANT: Now it's not on.

36 A PARTICIPANT: (Inaudible).

37 MR. HANLEY: There we go.

38 MR. CALDWELL: Okay. Is that better?

39 And then I'll wrap up with some recommendations.

40 To profile the company, in terms of our product mix, this shows the
41 distribution between military aircraft, commercial aircraft, missile, space, electronic
42 systems, and other activities. We are an aerospace company. We have had some past
43 diversification activities, which I must admit to you have not been that successful, as have
44 most defense firms, defense and aerospace firms.

1 We are the number 1 defense contractor, number 21 on the Fortune 500,
2 number 7 in terms of exports in this country, number 2 RDT&E contractor, and the
3 number 2 NASA contractor in the country. And we intend, in our strategy, to maintain
4 our position as number 1 or number 2 in all these industry segments.

5 In terms of customers, this is our business mix between government and
6 commercial; first, a cut at where we were at the end of last year, and then a cut as to
7 where we were in the middle of this year. Interestingly enough, we're balanced fairly
8 evenly between commercial and military business, have been so since our merger with
9 Douglas Aircraft in 1967.

10 I would like to point out that, at that time, we entered into our balancing, if
11 you will, of ourselves between the military sector and the commercial. We have tried to
12 maintain that balance in the past, and we continue to challenge ourselves to do the same
13 in the future.

14 Notice, if you look at the profile, in the middle of this year, we did have a
15 slight decline in the backlog section, and that's due to the decline in commercial aircraft
16 orders. As you know, this is a cyclical business. It has its ups and downs. We think, for
17 the long term, it's a very viable business to be in, but we have our pain there as well.

18 Our vision for the future is to remain preeminent in this marketplace,
19 focusing on our core aerospace capabilities and trying to look at complementary
20 businesses where we can use that technology to advantage, but not straying too far from
21 where we are, no more than one vector off of our current direction. And we think that we
22 can do that if we focus and structure ourselves properly for the future, and I would like to
23 discuss that.

24 In terms of reorganization, which was announced last week, we announced
25 a focus in the defense part of our business with two major sectors, one in this part of the
26 country, headed by John Capellupo, who has McDonnell Aircraft Company, the division
27 I'm from, our missile systems company and the helicopter operations, and the one on the
28 West Coast, headed by Ken Francis (phonetic), who is heading up our space systems,
29 electronics, and our military transport work on the West Coast.

30 In the center you will see we have separately identified our commercial
31 business, on the commercial aircraft side, with Douglas Aircraft Company, and Mr. Hood
32 (phonetic) heads that up. All reporting to the office of the chairman, a very small group
33 of strategic managers who will focus us to the future and the challenges that we face
34 ahead.

35 This is our employment history. First, total corporate-wide, two years ago,
36 roughly 133,000 people. In June of this year it was down to 99,000, some 33,000 reduced
37 nationwide. In St. Louis, it went from 42,000 to 29,000. A major point I would like to
38 make here: Most of the reductions have been on the commercial side, not in the defense
39 sector. Those cuts are yet to come, and we're anticipating them as we see major program
40 reductions, and we're preparing ourselves for that activity.

41 I would like now to focus on McDonnell Aircraft Company as an example,
42 because we are the largest single defense segment of the company. Four years ago, we
43 had three major production programs: the F-15, the F-18, and AV-8B (phonetic).
44 Recognizing that these production programs will be declining, we looked elsewhere to see

1 what else we could be doing.

2 We brought in the T-45 trainer from our West Coast Division. We created
3 a New Aircraft Products Division, which is focused on prototyping of new systems of the
4 future, our new technology thrusts. We brought in work from our Commercial and
5 Transport Aircraft Division at Douglas, both on the commercial transports, the MD-11 and
6 MD-80, and the C-17. And we have a group that has been working on the next
7 generation commercial transport, designing the wing for the MD-12, and that's in this
8 grouping here.

9 We set up a separate Training Systems Company, which generates several
10 hundred million dollars a year in business, both military and commercial. I want to show
11 you on the next chart what that means in terms of putting people to work in new areas. If
12 you look at the top segments, 15, 18, AV-8B, which we only had four years ago, that's
13 now a little over 60 percent of our business, and these other areas comprise the remaining
14 35-plus percent. So we have made significant progress in redirecting ourselves toward a
15 changing business climate.

16 I would like to also point out, we do intend to stay number one in the
17 defense business primarily because we are a very significant part of the defense industrial
18 base which must be maintained. We will need this industrial base in the future, and I
19 would like to point out some of the critical reasons why.

20 The F-15E is one of only two USAF tactical fighter production lines in
21 existence. The F-18 could become the only Navy fighter production program being
22 funded the rest of this decade, in terms of production. We're the prime contractor for the
23 only U.S. Air Force and Navy trainers in production, both the T-1 Jayhawk for the USAF
24 and the Navy T-45 Goshawk. The AV-8B is the only production V/STOL airplane in the
25 world.

26 We are institutionalizing our development for the future, prototyping
27 development, through our New Aircraft Products Division, and we have had outstanding
28 success in our R&D efforts, funding over \$300 million in R&D activities per year. We
29 are a major economic driver. Again, we have 26,435 employees currently in St. Louis.
30 The multiplier effect, through the suppliers that we have, spreads that further to some
31 200,000 people that contribute to our products across the country.

32 Focusing on the importance of international programs in terms of the
33 aerospace industry in general, it generates 10 percent of our total U.S. exports, a very
34 significant segment. It has comprised 20 to 30 percent of our own business. In fact, it
35 was 31 percent of our corporate business last year and has been so for the last 20 to 25
36 years.

37 Why are sales important from a military standpoint? It reduces the cost of
38 our own procurement programs, preserves that base, lowers our support costs, supports
39 this base, for that segment, at no cost to the U.S. taxpayer. In fact, it contributes revenues
40 to our national income, in addition. And it, of course, serves our national security interest
41 as we face a declining force structure on this side. It allows our allies to pick up a larger
42 share of that burden.

43 In terms of the criticality of these programs to us, in terms of the priorities
44 we see today, I think you all have heard about the Saudi F-15 program of 72 aircraft,

1 some \$5 billion, generating some 40,000 jobs nationwide, preserving our production line
2 for another three years. A very critical program to us which we hope will come to the
3 fore and be notified to Congress this year; a very high priority and a way to generate
4 revenues and earnings that we can prepare ourselves further as we face the future and
5 further declines in our budget.

6 We continue the F-18 sales. We are actively marketing the F-18 around the
7 world, and we would hope, in the next 15 years, to see more success there. The AV-8B
8 is a unique product, and we have a collaborative program going in Italy and Spain. We
9 hope to sustain that and preserve options for our Marine Corps to buy more in the future
10 and to upgrade their products as well.

11 Continued Harpoon and SLAM production. Continued helicopter
12 production of our Apache, the Delta launch system. And, very importantly, in the
13 commercial segment, the foreign sales make up at least 50 percent. In terms of our
14 backlog today, it's even a little bit higher. So we're looking at half of those sales coming
15 from our foreign air carriers. So it's very, very critical to us.

16 Recommendations that we have for this Commission, Mr. Chairman: We
17 think there are some improvements needed in the acquisition process to help us in the
18 years ahead. We need to continue to focus on production. Just prototyping and
19 technology demonstrators are not enough. There needs to be a production base in order to
20 absorb the fixed costs that we must incur to maintain the facilities that you saw with your
21 committee yesterday.

22 We need improved budget stability, even though at a reduced level. We
23 need to know what it is. We need to know how to plan for the future. This vacillation
24 year by year and changing of priorities, it's very difficult to prepare yourself for the future
25 without knowing what the budget level is going to be.

26 We need improved profitability. That sounds like motherhood to us all
27 here, maybe, but in this business, if we're going to invest in the future, we need to have
28 earnings. There are some things that can be done there to improve the process for
29 progress payments tied to milestones in the future. These types of things I think are quite
30 important to us. We are facing now, I think, an environment where there won't be any
31 fixed price development contracts. That is, hopefully, on the way. Certainly, that has
32 caused some pain and agony in the past and has depressed our profitability.

33 And dual-sourcing: We've noticed that, as we look at low rates of some of
34 these systems in the future that have in the past been dual-sourced, that doesn't make
35 sense at the rates of production we're talking about. So that can allow us, again, to be far
36 more profitable and efficient in the future.

37 Recovery of independent research and development charges: There is a
38 move afoot to fully recover those, and we would certainly encourage that. Tax incentives
39 for R&D expenditures are certainly another initiative that makes sense. From the
40 contractual side, the completed contract method of accounting, a return to that, we think,
41 would make sense from our cash flow standpoint.

42 Other initiatives: The privatization of work that is now performed in
43 depots, we're looking at some of the prime military systems such as our F-18 and F-15,
44 getting a portion of that work into the private industry. We have facilities that are well

1 set up for that. It allows us to have a greater surge capability in the future, to respond to
2 national emergencies by having some of that modification, repair, and overhaul work done
3 in industry.

4 Foreign sales initiatives: We talked about the importance there. There's a
5 lot that government can do: first, to be proactive, to recognize that we have foreign
6 competition and to assist our company and our companies as other governments assist
7 theirs. Proactive support with our allies, encouraging them to have interoperable
8 equipment with us, very important. Proactive support with Congress which sometimes
9 has denied the sale in certain parts of the world. Where it makes sense in our national
10 security interest, we certainly promote that support.

11 Tax incentives, financing assistance, and elimination of prior research and
12 development funds: There are two amendments to the defense authorization bill this year
13 going forward to create some export loan guarantees. We would encourage that to go
14 forward. We have some documentation on that, if you're interested. Also, again, an
15 amendment is being proposed to eliminate prior research and development funds
16 recoupment charges to allies, a very important initiative.

17 Finally, Mr. Chairman, there are additional investment incentives tied to the
18 future, the future of new aerospace programs, such as the civil space activities in the
19 future, the high speed civil transport. These are very major initiatives of the future, and
20 we would like to see the government involved in trying to help us go into these high-risk
21 areas.

22 Finally, in terms of education, a fostering of stronger mathematics
23 programs, science programs in our schools, providing funding and emphasis on these
24 areas, and promoting partnerships with the academic community and industry. We are
25 involved in a number of them ourselves. One was mentioned just a few minutes ago in
26 terms of the application of civil structures. We're involved in that project, and I'm
27 funding that out of some of my budget areas. That is another area we think that we need
28 to investigate and find out if there are some viable applications. We are certainly
29 pursuing those initiatives, as well, and we would like to continue to have the academic
30 community prepared to help us think through the future and think strategically.

31 I thank you for the time. If there are any questions, we have time for that.

32 CHAIRMAN BERTEAU: Mr. Caldwell, I think that the questions we do
33 have are probably answered in your written material, which we will take. And, of course,
34 we did have a meeting with McDonnell Aircraft yesterday, and I suspect many of our
35 questions were answered at that point as well.

36 In the interest of time, unless any of the other Commissioners, have
37 questions, thank you very much. We will take the material you have there, and we really
38 appreciate your appearance here this afternoon. Thank you.

39 MR. CALDWELL: Thank you very much. All the slides are covered in
40 the handout, as well as the written testimony, which, again, has more programmatic
41 material.

42 CHAIRMAN BERTEAU: All right.

43 MR. CALDWELL: Thank you, Mr. Chairman.

44 CHAIRMAN BERTEAU: Thank you.

1 MR. HANLEY: Thank you, Mr. Caldwell.

2 Our next witness is Mr. Glenn R. Lawrence from the Office of the
3 Governor of Indiana.

4 CHAIRMAN BERTEAU: Mr. Lawrence, we certainly appreciate your
5 coming here this afternoon. In fact, it's a good indication that we have reached across the
6 state into the region and beyond the local area. I think, from our perspective, we certainly
7 would like to be able to go to more places than we have time to cover, and we appreciate
8 your coming to us.

9 MR. LAWRENCE: You are welcome. Come anytime. It's only a 44-
10 minute flight.

11 CHAIRMAN BERTEAU: All right. Thank you, sir.

12 MR. LAWRENCE: I would request that my full comments be included in
13 the record, and I will attempt to summarize. Having previously worked on the Hill, I
14 know how frustrating it gets when someone brings a document and says they will
15 summarize and then reads verbatim. I give that document to you, not necessarily for the
16 text, but for the charts that are in the back.

17 On behalf of Governor Evan Bayh of the State of Indiana, I appreciate the
18 opportunity to come here and testify for the State of Indiana. We feel that Indiana, over
19 the past several BRAC Commission decision hearings, has been disproportionately hit, so
20 to speak, with the base closings. In a 1988 decision, they closed the Jefferson Proving
21 Ground. Then, in the 1991 round, we got the last two active military bases in Indiana
22 closed and one deactivated.

23 The total work force which will be out of work by 1995 to 1997 will be
24 13,000 people. We will end up with over 71 million acres of land, 12 million square feet
25 of buildings. I might add that 55,000 of those acres are covered with unexploded
26 ordinance in Jefferson Proving Ground, which will never be closed, I'm sure.

27 In addition to that, of course, our difficulty with the finance center, and it's
28 possible, if we don't get the bid on that, that we will lose an additional 3,000 jobs. In
29 addition to this, of course, with the build-down, we anticipate an additional 23,000 to
30 26,000 jobs lost over the next five years.

31 Indiana has about \$2 billion of prime defense contracts, of course, a
32 substantial part of that being aircraft engines, but, even so, the ripple effect of losing some
33 of these contracts certainly makes a big difference. We're not talking necessarily just
34 about jobs in the defense industry or jobs in the military; we're talking about jobs of
35 people who deliver the coffee, people who deliver the laundry or cut the grass. The ripple
36 effect is very devastating to a state which is, of course, as everyone else is, hit by a
37 recession.

38 I'm sure you can understand that it's not just jobs we're talking about; what
39 we're talking about -- and that's certainly a very important issue -- but we're talking about
40 the impact, in particular for Indiana, the impact on the state as a whole. There are a
41 number of programs and funds available to local communities and to areas where bases
42 are being closed. But Indiana we feel is unique in that, at the same time, we are having
43 four bases closed. We are second only to Florida in that impact.

44 We are dealing, a staff of two, myself and a person of economic planning

1 and development, working as a staff of two, to try to assist in the coordination of this
2 effort. We're talking an impact on the state of health care, of social services, the schools,
3 the court system. Everybody is impacted, not just jobs.

4 So when we start talking about an allocation of funds or resources, we can't
5 just look at training. We can't just look at retooling of industries. We have to be
6 concerned about the social fabric of the rest of the state: the court systems and
7 bankruptcy courts, claims against people who have lost their jobs and, unfortunately,
8 probably divorces, that occurs too.

9 CHAIRMAN BERTEAU: Excuse me, Mr. Lawrence. Our levels are a
10 little bit low. If you could just pull the mike up a little bit.

11 MR. LAWRENCE: Okay.

12 CHAIRMAN BERTEAU: Thanks.

13 MR. LAWRENCE: So, while normally base closings is a local issue, in
14 the State of Indiana, with four active military installations being closed at one time, this
15 mandated a statewide response, involvement, and strategy. In January of this year,
16 Governor Bayh established the -- and I'm sorry it's so long, but I wanted to include
17 everybody -- the Governor's Indiana Military Base Use Coordinating Commission. Our
18 mission is to assist the local communities in getting through this time, and, also, we have
19 expanded to start assisting defense contractors.

20 Our commission consists of the Governor; the Lieutenant Governor, as the
21 Director of Commerce; four other state agency heads, including the Department of
22 Environmental Management, the Department of Natural Resources, Corrections, and the
23 Adjutant General; representatives of the congressional offices of the five districts which
24 have military bases in their districts; and then local community leaders in the areas of
25 finance, banking, real estate, urban planning, and environment.

26 The mission of the commission is to coordinate and assist, as I said,
27 focusing local, state, and federal resources, both physical and technical, to facilitate
28 community readjustment. And the basic approach we are taking is a determination of the
29 defense dependency of the State of Indiana and then developing a strategy to address the
30 retraining, identification of new markets -- I'm sure you've heard this from a number of
31 people -- identification of new product lines, helping existing firms become competitive in
32 a peacetime society, and planning the use of the property.

33 Our first step is to develop a survey, which we are doing in conjunction
34 with Indiana University and a quasi-governmental body of the State of Indiana, which is
35 called the Indiana Business Modernization and Technology Corporation. We will send
36 this out to our 900 prime defense contractors to determine what they intend to do, to find
37 out who their subcontractors are and see if we can contact these people to see if they want
38 assistance, see what their plans are, to get inputs from them.

39 From there, we are working with our local labor-management teams shown
40 in here. I have a list of questions and contacts and impacts that we're looking at with our
41 labor unions and our labor people and our labor force to try to identify what we need to
42 do. We're going to identify their educational level, their possibility of moving, of moving
43 up, what they want to do. We have a critical shortage in the medical profession, as
44 everybody does. We would attempt to try to divert some of the people in there.

1 Mr. Chairman, you brought up the concept of what programs are needed.
2 We strongly advocate, if at all possible, no new programs. If you will look in the back, I
3 have made a list. Indiana is fortunate in having developed a number of economic
4 development training programs. They are working adequately.

5 Unfortunately, in recessionary times, they are getting strapped -- and I say
6 in my statement -- both physically and physically [sic]. We don't have the money or the
7 manpower just to deal with recession and the ongoing difficulty we're having. And if you
8 pile on top of that 13,000 more people looking for jobs, or 36,000 more people looking
9 for jobs, then we have some real difficulty.

10 I'm not the type of person and the Governor is not the type of person to
11 throw money and people at things. But what we would like to do is work through the
12 programs we already have. Our proposal is to bolster the EDWAA program, the JTPA,
13 with the lead agency the Department of Labor and OEA DOD. Although the money is
14 not getting out necessarily, I think it will.

15 One unfortunate aspect that I have noticed, and I mentioned in here, which
16 I would like to see changed, is that OEA -- we applied back in January for a state grant.
17 This whole thing is based on a statewide strategy. OEA advised us that they feel that
18 states are not an eligible applicant. We see it differently. I believe the statute says so
19 differently, but they would not accept that.

20 So, luckily, and I think next week we're going to get some very good news
21 from EDA. And we've gone to the Department of Commerce, and the Deputy Secretary is
22 coming to Indiana next week to discuss our grant with us, and we appreciate that.

23 But we have Voc Ed; we have Training 2000; we have Work Force
24 Development, and all the programs here. I have three pages of programs. We're not
25 going to develop any new programs, and we don't see any need for the government
26 necessarily to develop any new programs.

27 Another impact on the state, of course, is the bricks and mortar. We have,
28 like I said, 12 million square feet of buildings. Even if we don't use any of it, we have to
29 start look at our Department of Environmental Management being impacted, our
30 Department of Transportation being asked to put in slowdown lanes or turn lanes, if
31 industrial development starts coming. So it is a statewide issue.

32 At the end, I make some observations and recommendations. Those have
33 previously been passed on by the Governor to Chairman Aspin and also to the Senate side
34 through Senator Lugar and Senator Coats. We, specifically, very strongly advocate
35 additional funding to the Governor's discretionary programs, the flexibility to work with
36 them. We're concerned that we're put in a box, and the uniqueness or the time constraints
37 work against us. We feel that the uniqueness of a situation in a state should be something
38 that we should be the ones to direct.

39 I think one of the witnesses previously testified, give us the opportunity to
40 work the way we can. We have a medical shortage. Some other state might not have a
41 medical shortage. If you direct us to give stipends to people to go into engineering
42 school, well, Purdue is going to be happy, but, you know, we -- and, along those same
43 lines, if funding is given for a specific project, the concept of how that impacts the rest of
44 the program is very important.

1 If stipends for education are given, then it has to be realized that people are
2 going to start going there. Only about 33 percent of college costs are paid by tuition, so
3 then you have to start looking at how that impacts the state. If we want to expand the
4 programs, if the Congress and the Administration would direct us to say, "Hey, look, we
5 need more scientists; we need more engineers," that's all well and good, and give the
6 people the stipends and the scholarships to go there. But, at the same time, we have to be
7 concerned about Purdue, and IU, and the rest of our colleges not having the space, not
8 having the teachers already there. So the state would need some assistance too.

9 Finally, we should be authorized to develop our own formula for the future.
10 Through this study and through looking at the future, we want to make a determination of
11 what is important for the State of Indiana.

12 We've made a \$300-million commitment to the United facility there, so
13 now we're starting new programs at Vincennes University and Purdue University for FAA
14 certification of airline mechanics. That's something the State of Indiana is doing and we
15 will continue to do. And we may look at more airline-related industry items, but, at the
16 same time, we might want to look at more pharmaceuticals with Lilly. And I think it has
17 to be locally directed.

18 Finally, you asked a previous witness -- and I'll do it fast so you don't have
19 to think about it yourself -- where the money would go. Our concept is that allocation of
20 funds should be on a formula based upon both base closings and impact of DOD losses,
21 and not necessarily regional. We should have a formula established because we're not
22 paying, or we're not dealing with recession; we're dealing with something other than the
23 recession.

24 If you had money to deal with the recession, that would be fine and well
25 and good, and it should be done. But Indiana is being impacted because of base closings
26 and defense downsizings, in addition to the recession. We feel we should be allocated an
27 amount of money because of that, specifically.

28 I want to thank you for the opportunity to testify.

29 CHAIRMAN BERTEAU: Mr. Lawrence, I want to thank you as well.
30 This is a good package. It has some good information in it. It may well be that, as we
31 look at, for example, your attachment that does have the listing, three pages worth of
32 programs, we may want to find out some more about some of these programs.

33 MR. LAWRENCE: Wonderful.

34 CHAIRMAN BERTEAU: We should contact you and work through you
35 and your office there?

36 MR. LAWRENCE: Yes, sir.

37 CHAIRMAN BERTEAU: I certainly appreciate the effort that has gone
38 into this, and I think these recommendations are ones that we will all take a hard look at.
39 Any questions on any particular points?

40 (No response.)

41 CHAIRMAN BERTEAU: If you would extend our thanks to the Governor,
42 as well, for permitting you to come over and testify, we would really appreciate it.

43 MR. LAWRENCE: Yes, Mr. Chairman.

44 CHAIRMAN BERTEAU: Thank you.

1 MR. LAWRENCE: Thank you very much.

2 MR. HANLEY: Thank you, Mr. Lawrence.

3 The next witness is Mr. F. Thomas Stark, the president of Visionaire
4 Corporation here in St. Louis.

5 CHAIRMAN BERTEAU: Mr. Stark, as you are coming on, I would like to
6 thank all the witnesses so far for sticking to the schedule. I know that those of you who
7 are waiting your turn appreciate it even more so.

8 MR. HANLEY: I would like also just to mention that we have the
9 microphone system cranked up as far as it will go before it starts to interfere with itself.
10 So, if you would, just speak directly into the microphone, and that way it picks it up so
11 the PA system works better, and we get a better recording also. Thank you.

12 CHAIRMAN BERTEAU: Mr. Stark, welcome.

13 MR. STARK: Okay. Can you hear me?

14 CHAIRMAN BERTEAU: Yes, sir, loud and clear.

15 MR. STARK: Okay. Well, I'm very grateful to be able to testify this
16 afternoon. This is far from academic for me, because I am a displaced defense worker, as
17 is my son. However, instead of being viewed as a victim, I hope I represent part of the
18 solution.

19 Visionaire Corporation is a new company that is developing a business jet
20 airplane. Industry marketing authorities who have looked at our concept feel that we're
21 going to fill a market niche that currently is not being filled, and they predict success for
22 us.

23 We will be providing 2,800 aerospace industry jobs, and there's a multiplier
24 effect on these types of jobs which economy-wide would be about 10,000 jobs. Those
25 10,000 jobs will pay around \$90 million annually in local, state, and federal taxes. So we
26 hope that our success is a success for the country as a whole.

27 Currently, we're in the mode of raising capital to fully launch our program.
28 Over the next four years we're going to need a total of \$50 million. That will get us to
29 the point of delivering our first airplane. We've been working at capital acquisition for
30 about a year. Several of us in the company are taking no salary at all, and the rest who
31 are taking salaries are working at far less than industry standards.

32 We sometimes wonder just how many good ideas are there out there that
33 are stillborn because the people involved can't afford the economic hardship of working
34 without a salary. It's important to realize that small, start-up companies like ours are one
35 of the nation's greatest sources of innovation. Just about every great company at one time
36 was a small company. McDonnell Douglas, for example, was a very small company when
37 they started out.

38 And small business does create a disproportionate share of new jobs. I read
39 just recently that the Fortune 500 share of jobs has dropped substantially. Ten years ago,
40 it was about 17 percent of the work force; now it's a little over 10 percent. So small
41 business is creating more jobs.

42 We believe that the federal government can help encourage companies such
43 as ours. One way would be through tax incentives for investment. A capital gains tax cut
44 to zero, if the gain is invested in job-producing activities, is one approach. I believe

1 Germany uses that approach. But I'm here to talk about more direct providing of seed
2 capital. One way to do this, and certainly not the only way, but one way to do this would
3 be to redirect some of the current IR&AD funding.

4 Now, for those of you who are not familiar with IR&AD, that stands for
5 independent research and development. This is a percent of sales provided by the
6 government to main suppliers so that they can do research and development that they
7 choose.

8 IR&AD has been extremely important during the Cold War and has
9 provided a lot of the technological advantages that we have had over Soviet weapons.
10 However, things are different now. There is no more USSR. The need for IR&AD is
11 less. Right now we're in a global economic competition more so than a weapons
12 technology competition with the Soviets. So our proposal is that 25 percent of the
13 IR&AD funds be redirected to provide seed capital to new start-up companies.

14 We recommend that these companies be those that use defense-related
15 technology and employ defense workers. We feel that the prime defense contractors today
16 should be the agency that redirects those funds. When they invest seed capital from these
17 funds in a new company, they take an equity position in that company. That gives them
18 an incentive to assure the success of that company. And you have to realize that the big
19 companies have tremendous resources of all sorts that can help a start-up company.

20 Now, the government benefits by this approach, and it gets tax revenues.
21 As I mentioned earlier, \$50 million invested in our company will create \$90 million in
22 annual tax revenues. That's a pretty good investment. Now, we don't need \$50 million of
23 seed capital; we need about \$5 million of seed capital. That will get us to the point where
24 the regular financial institutions can take over.

25 The advantages of this approach are that no additional funds are required;
26 they are already there. It provides badly needed seed capital. Seed capital is extremely
27 hard -- from personal experience we know how difficult it is -- particularly if you're not in
28 a favored industry, and we are not. Aerospace is not a favored industry.

29 It creates jobs. We will be creating about 10,000 jobs, economy-wide. It
30 strengthens the U.S. economy. It also helps preserve the defense industrial base because
31 we'll be continuing defense-related technology and using defense workers, or former
32 defense workers. And it provides a low-risk diversification opportunity for defense
33 contractors.

34 With that, I would like to entertain any questions you may have.

35 CHAIRMAN BERTEAU: Thank you, Mr. Stark. It's an intriguing
36 proposal. Have you discussed this in any way with any of the corporations who would be
37 the participants in this and gotten any reaction from them, either officially or --

38 MR. STARK: No. This is a relatively new proposal on our part, and we
39 have provided it to the RCGA, plus your Commission.

40 CHAIRMAN BERTEAU: All right. From the company's view, of course,
41 the IR&AD, the independent research and development funding, is something that they
42 currently have some flexibility with. What you would be doing, in essence, if I
43 understand your proposal, is, they would be -- up to the 25 percent, the only thing they
44 could do with that money is to invest in start-up companies. And, in exchange for that,

1 they would get an equity stake in the company, an arrangement that would be worked out
2 between the prime contractor and the new start-up company.

3 MR. STARK: That's correct; yes.

4 CHAIRMAN BERTEAU: That's correct. Okay. And then the
5 reimbursement for that part of the investment would be the same as the kind of
6 reimbursement they currently get for independent research and development funding?

7 MR. STARK: That is correct; yes.

8 CHAIRMAN BERTEAU: In essence, then, that would be written off, and
9 the government would have financed that part of it. And the government's gain from that
10 would be, if the company is successful, your creating jobs, and creating a tax base, and so
11 on.

12 MR. STARK: Creating jobs and taxes; right.

13 CHAIRMAN BERTEAU: All right. Your proposal is detailed a little bit
14 in the material that you provided us.

15 MR. STARK: Yes, it is.

16 CHAIRMAN BERTEAU: I have had the opportunity to look through that.
17 You mentioned a seed financing level of about \$5 million and then the financial
18 institutions take over. Do you see the source of funding that you have described,
19 essentially government-sponsored investment through the corporate investment, do you see
20 that as being beneficial, in terms of access to capital through the normal financial
21 markets?

22 MR. STARK: Well, it would get us to the point where the normal financial
23 markets would take us more seriously. For our company, specifically, that would get us
24 to a prototype airplane flying, get us to the point where we can start marketing the
25 airplane. Once we're marketing the airplane, we have something that's tangible that they
26 can see, plus orders, they are going to start taking us very seriously, and we could be
27 funded in a variety of ways, either debt or equity financing, depending on what is in
28 fashion at the time.

29 CHAIRMAN BERTEAU: You also mentioned there would be some
30 restrictions on who would be eligible for this. I think the way you phrased it was, it
31 would have to be a start-up company that was using defense-related technology and
32 employing former defense workers.

33 MR. STARK: That's correct.

34 CHAIRMAN BERTEAU: Who would monitor that to determine what the
35 eligibility criteria would be under those terms? Would that again be arrangements with
36 the company?

37 MR. STARK: The company would administer it. I would assume that it
38 would be controlled by DOD, much in the same way they have oversight over IR&AD
39 money, so that they could be sure that companies are not investing in pizza parlors, or
40 shopping malls, that kind of thing.

41 CHAIRMAN BERTEAU: One of the things we wonder about as a
42 Commission is, anytime you establish a new government process, there is at least the risk
43 of creating a bureaucracy to go with it, which may or may not make it more or less
44 efficient, if you will.

1 MR. STARK: Understand.

2 CHAIRMAN BERTEAU: How would you avoid that outcome in this
3 case?

4 MR. STARK: Well, by having the administration being done by the
5 contractor rather than directly by the government, it would minimize that. Undoubtedly,
6 there would be some additional government effort on its part, but we hope to minimize it.

7 CHAIRMAN BERTEAU: That's a very intriguing proposal.

8 Any questions?

9 COMMISSIONER DAHLMAN: If this is a good idea for defense, why
10 isn't a good idea outside of defense? You seem to tie your proposal simply around the
11 existence of IR&AD funds in the Defense Department's budget. But if it's a good idea,
12 that's kind of an artificial limitation to it, isn't it?

13 MR. STARK: Well, I would like to see it expanded, certainly. Since I
14 came out of the defense industry, I'm more familiar with that. Seed capital throughout the
15 whole economy is in short supply, and any other source of seed capital that the federal
16 government can provide certainly would be beneficial, and not limited to things that are
17 defense technology related would be beneficial. I'm looking at it somewhat narrowly here,
18 I admit.

19 CHAIRMAN BERTEAU: Any other questions?

20 (No response.)

21 CHAIRMAN BERTEAU: Thank you very much, Mr. Stark.

22 MR. HANLEY: Thank you, Mr. Stark.

23 CHAIRMAN BERTEAU: We really appreciate your --

24 MR. STARK: Thank you.

25 MR. HANLEY: Mr. Chairman, if you would like to have a brief break
26 now, it's logistically feasible.

27 CHAIRMAN BERTEAU: It's personally desirable as well. Thank you
28 very much.

29 MR. HANLEY: All right. Why don't we have a break for 15 minutes and
30 reconvene at around 2:20.

31 (A recess was taken.)

32 (End side 1, tape 1.)

33 CHAIRMAN BERTEAU: Mr. Hanley, we are ready to resume?

34 MR. HANLEY: Yes, sir, we are indeed.

35 I just want make sure, is Mr. Dick Oldenberg here?

36 (No response.)

37 MR. HANLEY: No. Okay. Our next witness, then, is Mr. Cassel
38 Williams, the president of District 837 of the IAMAW.

39 CHAIRMAN BERTEAU: Mr. Williams, welcome.

40 MR. HANLEY: Welcome, sir. Nice to see you again.

41 CHAIRMAN BERTEAU: You promised us that you would regale us today
42 with your views, and we're looking forward to them.

43 MR. WILLIAMS: Thank you indeed.

44 CHAIRMAN BERTEAU: You may begin.

1 MR. WILLIAMS: I represent District 837. That is the union that
2 represents the CB employees at McDonnell Douglas, and our concern is mostly humane.
3 When I say "humane," we look at the situation that we have been thrust in, with the
4 layoffs because of the declining defense budget. There are a lot of hardships involved,
5 got a lot of members that are losing their homes, losing their cars, taking kids out of
6 college, doing everything they can to try to survive, let alone hold on to what they have.

7 You see this taking place every day. We stopped and we analyzed the
8 defense industry and the defense worker. We came to the aid of the country when it was
9 needed to protect our borders and to share our weapons systems with our allies. The
10 Persian Gulf is a prime example of just what part the defense worker played.

11 There's a lot of talent and ability in those defense workers, and we try to
12 see what we can do to stabilize the work force, but every week it's declining more. And
13 with the threat of the defense budget more or less going away, there's still a threat that no
14 one can work with a clear, exact working conscience when they know that any day they
15 might lose their jobs.

16 Now, we know there are some programs. They say retraining, but what can
17 we retrain a talented, skilled worker to have a meaningful job after the training? We can
18 see all the work going overseas. When I say "overseas," that work could be brought
19 home where training could be meaningful, that we could train in the technical fields. We
20 could also train in areas where the job markets are. We have got to reestablish our
21 industrial base and bring the work back home.

22 We were hopeful, when we heard a committee like this was being
23 formulated, to take the message where someone can do something about it. We've talked
24 about it and talked about it, but no one has taken action. We have got to try to maintain
25 America for Americans, and I'm not talking racially-wise, but those Americans even from
26 foreign countries that are here.

27 Our economic base is shrinking around the country, that when the members
28 at District 837 here in St. Louis are laid off, they have no place to go, because the same
29 situation is taking place around other major defense industries or cities where work would
30 be available under normal circumstances. We don't know what the future will be like.
31 There is no legacy that we can leave to our kids or grandkids, because the jobs won't be
32 there.

33 There are a lot of industries more or less that have just eroded away
34 completely. If we could bring some of those industries and the technology back home, I
35 think we can create a situation where training would be effective. We should hope that
36 the government would get more involved in trying to stabilize the educational system that
37 will take care of the technical needs for now and the next 50 or 60 years.

38 We don't know what's going to take place if things continue as they're
39 going. No politics involved, but just a necessitated humane concern that we'd all better
40 look at, because we all have kids, we have grandkids, and what will the future look like?
41 Everyone cannot work at McDonald's hamburgers. And then, if they do, we won't have
42 money to buy the hamburgers.

43 Somewhere down the line, we're going to have to turn this thing around. I
44 don't look for the President or totally the Congress, but we, ourselves, are going to have to

1 turn it around and get ahold and try to reclaim that which we've lost.

2 And my main concern for coming today is to let you know that our
3 members are desperately in need of help. They need someone to be concerned about them
4 today and tomorrow. We need somebody to think about the future of the kids that are
5 coming into the labor market or coming into the work force.

6 It was so insulting to see that, for the first time in 25 years, college
7 graduates couldn't find a job. We tell the kids, "Go to school. Get something in your
8 head. The work will be there for you." And this is taking place all over the country. If
9 something doesn't take place to try to stabilize this economy and fortify it, the whole
10 democratic process is slowly eroding away, and we can feel the effects of it right today.

11 Thank you.

12 CHAIRMAN BERTEAU: Mr. Williams, thank you.

13 Let me agree with you that, in fact, I think, as you pointed out, a very
14 important part of this is not just retraining, it's retraining for what? And you have
15 suggested, I think, that one of the sources we ought to pursue for the jobs there has to do
16 with reestablishing the technical capability in areas where perhaps we're not as strong as
17 we should be.

18 Your members -- I assume you've had a large number of them who have
19 been affected by the layoffs.

20 MR. WILLIAMS: Quite a few.

21 CHAIRMAN BERTEAU: And do you track the kinds of experiences they
22 have in terms of retraining?

23 MR. WILLIAMS: Definitely so.

24 CHAIRMAN BERTEAU: Do you have any information that you might be
25 able to provide us on the success or lack of success from those retraining programs?

26 MR. WILLIAMS: I don't have the data, but I do have some statistical
27 facts. I find out that the training and the trainers need some training. And I say that as,
28 why take a laid-off member, put him through training to go back on layoff? I think there
29 has got to be some research to find out where the job markets are, where the need is,
30 whether it's the medical field or what.

31 You find a defense worker that has been in the defense industry for longer
32 than 10 years, most of his skills are right there in that defense industry. Now, they can be
33 retrained when you find some of them are higher skilled, like tool and die makers, or
34 some semi-skilled, they can be retrained. In other words, the same type of engineering
35 can be used on electrical cars, or used on locomotives, or what have you, the same as
36 aircraft. So there's a feasibility.

37 For instance, we have a transit system by the name of Bi-State
38 Development that just put a rail system that will go into effect in 1993. And I asked
39 them, "Where are you going to get the cars that's going to run on the tracks?" "We'll
40 either go to Germany, France, Japan, or Canada." "Well, why not buy it here?" "There's
41 not an American company that builds those trains." Well, wait a minute. Every major
42 city is putting in a rail system. Why can't we retrain some of the defense workers to do
43 that and reclaim?

44 Now, I know the government is going to have get involved and put some

1 money up for research and development. I see nothing wrong with that. I think every
2 individual would be willing to pay a few higher taxes if it would create a better economy
3 or stabilization of the work force as it is today.

4 And I think that training can be utilized. You talk about the ecology.
5 Electric cars, no one has really got into that. I hear they're talking about it in California.
6 Then you stop and you talk about solar energy for buildings such as this. There could be
7 research and development, because this is something for jobs of the future. I think there's
8 still a lot of possibilities if they were researched.

9 CHAIRMAN BERTEAU: Mr. Williams, we've also heard from one of the
10 witnesses earlier today and, as a Commission, we've heard this a number of places
11 elsewhere around the country, that small businesses and new start-up companies are where
12 the job creation really is. Do you have any experience with your members trying to start
13 their own companies and the kinds of assistance provided them to do that?

14 MR. WILLIAMS: Yes, but there's been some restraint. Funds are pretty
15 scarce for new small businesses that are starting out. Quite a few are trying, and they go
16 out on an individual basis, but the operating capital isn't there. A lot of them take a
17 chance, and in six or seven months they're out of work again.

18 CHAIRMAN BERTEAU: You're familiar, I think, with the RCGA and the
19 Economic Development Council programs.

20 MR. WILLIAMS: I'm a member of the RCGA, yes.

21 CHAIRMAN BERTEAU: Yes, sir. Is it your view that the proposals they
22 have contribute towards the kind of outcomes that you are advocating today?

23 MR. WILLIAMS: Definitely so. And I think there's got to be a working
24 relationship between labor and management for the survival of both. The adversarial role
25 that did exist, I think it has to go away. And RCGA does have a program that would
26 make it attractive, and they also have control over funds that could be instrumental in
27 helping some of these programs work.

28 CHAIRMAN BERTEAU: Any other questions?

29 (No response.)

30 CHAIRMAN BERTEAU: Thank you very much, sir. We appreciate that.

31 MR. WILLIAMS: Thank you.

32 MR. HANLEY: Thank you, Mr. Williams.

33 CHAIRMAN BERTEAU: You've covered the waterfront very well.

34 MR. HANLEY: The next witness -- we have two witnesses who are going
35 to testify for us: Rose Kemp, who is the regional administrator of the Women's Bureau of
36 the Department of Labor, came all the way from Kansas City, which is very kind; and
37 testifying with her is Ms. Ruth Margolin, the director of the Women's Center here.

38 MS. MARGOLIN: (Inaudible).

39 MR. HANLEY: Oh, in Kansas City. Forgive me.

40 MS. MARGOLIN: We're at the University of Missouri.

41 MR. HANLEY: At the University of Missouri. Thank you, ma'am.

42 MS. MARGOLIN: (Inaudible).

43 MS. KEMP: (Inaudible). We won't talk at the same time.

44 CHAIRMAN BERTEAU: That will help us, as well, yes.

1 MS. KEMP: Thank you very much for allowing me to be here today.

2 CHAIRMAN BERTEAU: Thank you very much.

3 MS. KEMP: And, as was mentioned, I did bring a partner. In addition to
4 bringing a partner, I also came with a package of information for each of the
5 Commissioners and, of course, the Chair. And the packet of information includes
6 testimony from two women veterans. I will not go into the details of their testimony
7 because of the time constraints.

8 My testimony today is more focused toward suggestions for exploring the
9 potential for assisting employees, women employees. When I talk about women, I'm
10 talking about three categories of women: I'm talking about military women; women who
11 work in defense production or for military installations as civilians; and the third category
12 is spouses of male military workers.

13 The 20th century marks the first time that large numbers of women have
14 been utilized in the United States armed forces. This means, of course, that, as defense
15 downsizing occurs, there will be the urgent need to address the issues of job training and
16 career opportunities for these women in civilian capacities.

17 When I talk about the three groups of women that we ought to look at, I
18 think that simply targeting programs for those women, for women in the military, for
19 women veterans, and for female spouses, as definable subpopulations worthy of programs
20 specifically designed to address their distinctive needs, would help.

21 From my perspective as regional administrator of the Women's Bureau,
22 Region 7, which is comprised of the States of Missouri, Kansas, Iowa, and Nebraska, from
23 my perspective as an advocate for women, and from my perspective as having been the
24 spouse of a military careerist and now a widow of that person, I suggest for your
25 consideration that, before and after release from military, women veterans be given
26 adequate medical and psychological assistance and clearly articulated oral and written
27 information as to how to obtain such services, if such services will be needed in the
28 future, after they have left the military.

29 I also suggest that the providers of the gynecologist and psychologist
30 services should be those that are trained and oriented to the socialization and life
31 experiences of military women and female spouses. The psychological services could be
32 more beneficial if provided before leaving the service as a preparation for reentry into
33 civilian life. I think it's very important that we think in terms of having people who are
34 oriented to the specific needs of women and not just getting someone who has a credential
35 to provide a service.

36 The second thing I want to bring to your consideration is that women
37 veterans are unaware of many services and programs available to them. In the discharge
38 process, it is important that women clearly understand the services they're entitled to,
39 including such services as provided by the United States Department of Labor's Economic
40 Dislocation and Worker Adjustment Assistance Act.

41 Many civilian women have been unaware of the dislocated worker
42 programs when mass layoffs occurred, and this lack of information resulted in some
43 women losing their entitlement to this special service.

44 The third thing I want you to consider is that women veterans face

1 occupational segregation based on individual factors and structural factors. The individual
2 factors may become less of an issue as more occupations are becoming less gender
3 specific, as well as the shrinking labor force is called to our attention in the U.S.
4 Department of Labor's publication, "Work Force 2000; Work and Workers for the 21st
5 Century."

6 The structural segregation may be more difficult for women to overcome
7 for a variety of reasons, including the fact that women trained in military occupations are
8 as well trained and as well qualified as those workers who have been trained in
9 nonmilitary schools for the same occupation. However, the woman veteran does not
10 consistently have the credentials to help herself access nonmilitary positions in the same
11 occupation or to be given credit or seniority for those years of experience.

12 I could, you know, go ahead and give you some examples, but I don't want
13 to be here for the afternoon.

14 The fourth thing is that specifically designed programs to provide women
15 veterans with the skills to effectively market themselves should be established. The
16 traditional military occupations filled by women may, in many instances, be nontraditional
17 in the civilian labor force. Women veterans need to have the ability to identify their skill
18 levels to gain access to traditionally male work domains.

19 In addition, military pay is based on rank and time in service and not on
20 gender. Careers in corporate America, in the nonmilitary public service, are not as
21 accessible for women, as is documented in the Department of Labor's "Glass Ceiling
22 Initiative" report. Training programs for women soon to be separated from the military
23 and women veterans should address strategies for accessing career paths.

24 The fifth point is that the establishment of a community one-stop resource
25 center would provide access to information as it relates to career exploration, career
26 assessment, testing, job placement, and self-management and sociability skills training.
27 The resource centers would also be a place to provide information on support groups as
28 well as professional organizations that can be of value to women veterans and female
29 spouses.

30 It has been well documented that women veterans do not have the
31 opportunities to get together as a group to talk, to share, to convey information, and to
32 offer support to one another.

33 The Women's Bureau is not an enforcement agency, and we're not an
34 employment agency. However, we are knowledgeable of community resources, and we
35 can provide direction to women or groups of women in need. The Bureau can initiate
36 programs and projects to meet the needs of women with special and similar problems, as
37 will be the case with respect to women veterans and female spouses.

38 It's also my hope, as a private citizen, that the expertise and the experience
39 of women veterans will be used to provide such needed public services as protective
40 services, educational services, and the rebuilding of America's infrastructure.

41 I have prepared for each of you a packet of information that includes my
42 written testimony, which is of course much more lengthy than what I presented here, the
43 testimony of the other two veterans, and a copy of the testimony of my colleague.

44 I want to thank you for allowing me to present my thoughts. I appreciate

1 this unique opportunity, and I do stand ready to answer questions or provide clarification.
2 I encourage you to use the services available through the Women's Bureau. The Women's
3 Bureau is the strongest voice in America for working women.

4 Now, I'd like to introduce again my colleague, Ruth Margolin, executive
5 director of the Women's Center, University of Missouri, Kansas City.

6 Thank you.

7 MS. MARGOLIN: I also want to thank the Commission for the
8 opportunity to speak before you.

9 For the past 25 years, I have worked professionally with women and men in
10 their career development, employment advancement, and continuing education. I believe
11 that there are some approaches to meeting some of the unemployment problems
12 accompanying the peace dividend.

13 In 1986, the Hudson Institute was commissioned by the then Secretary of
14 Labor, William Brock, to study what the labor market would require of its work force for
15 America to remain "productive and competitive," those magic words. The report's chilling
16 evidence pointed out that we were not developing or retraining a work force to meet the
17 society's emerging needs, this society's emerging needs.

18 Today, this still remains a critical concern. However, due to their training
19 and work background, military and defense workers possess the basic skills and work
20 styles that are necessary for the foundation of a Work Force 2000. Our challenge as a
21 society today is to develop a creative program to tap the existing skills and experiences of
22 military and defense workers while assisting them in gaining new or additional skills to
23 remain economically self-sufficient.

24 A carefully crafted program of, let's call it, "earn and learn," particularly
25 addressing the needs of women, is what I would like to explore with you for my
26 remaining time. We know that there are staffing shortages in critical areas in our society,
27 such as the health care industry, education, and protective services.

28 I propose that our new corps of workers, trained workers, who are now
29 being released from many of their positions, have essential competencies and work habits,
30 previously developed during their training in military service, that could be used to
31 provide support services for before-and-after school programs, in the classroom, in the
32 hospitals and community clinics, and in our neighborhoods. In return for these services,
33 participants would receive training necessary to prepare them to earn a living in the
34 changed economy.

35 Women in the military and defense industries are frequently single heads of
36 households. Additionally, their work has been conducted in what are still nontraditional
37 work roles for women. Such community service exposure can carry two benefits: One,
38 women veterans and defense workers can provide positive role models for youth. And,
39 secondly, women veterans and defense workers can readjust to a changed work life in a
40 safe and supportive environment, which is not always true for women returning from
41 military service.

42 Such a program would require appropriate career and psychological
43 counseling based on local or regional community service needs and linked with area
44 employment trends, including interpretation of their existing benefits, as Mrs. Kemp

1 pointed out.

2 I want to emphasize the need to pay attention to regional cultural
3 differences and attitudes. Such a program that I am speaking of might well be anchored
4 in a community business-government alliance. In some communities, the program might
5 be an extension of an existing successful program.

6 It is my understanding that \$150 million of the Department of Defense
7 funds have been reallocated to the U.S. Department of Labor to be used specifically for
8 defense downsizing services. I encourage you to examine how some of these funds could
9 be used to assist in the development of the "earn and learn" concept.

10 Our UMKC Women's Center received a grant from the Region 7 Women's
11 Bureau to carry out a project entitled, "The Women Veterans Project." The purpose of
12 this project was to learn about the experiences of women veterans in relationship to their
13 needs, the awareness of and the use of veterans' benefits and services, and to identify
14 needs for potential services.

15 One of the methods that we used was to gather information with focus
16 groups, with which we're all familiar. The project concluded, in part, that many of the
17 women veterans, as Mrs. Kemp has alluded to, are unaware of their various benefits and
18 personnel available to them. I, again, do not want to take the time of this committee, nor
19 is it the appropriate place to talk about some very specific incidents that have happened to
20 women veterans.

21 Much of what we heard was that they do not have time or opportunities to
22 talk about their own particular experiences. And it is still different, gentlemen, for women
23 in our society than for men, in many areas. In fact, one respondent said, when I asked her
24 did she not find that the Veterans of Foreign Wars chapters might not be a place where
25 there would be some kind of camaraderie and understanding, she said that she was so
26 discouraged from joining her local chapter that she drove way across town to attend
27 another meeting.

28 Based on my experiences and the findings of our Women Veterans Project,
29 I believe that, if you will, a GI bill for community service, or the "earn and learn"
30 concept, could be a significant step towards gainful employment and positive assimilation
31 of women veterans and women defense production workers into a changing and global
32 economy.

33 Thank you again for your time and attention. I will be happy to answer
34 any questions.

35 CHAIRMAN BERTEAU: Thank you, Ms. Margolin, and Ms. Kemp. I
36 think we do have some Commissioners with a couple of questions.

37 Carl.

38 COMMISSIONER DAHLMAN: Yes. I work in that part of the Defense
39 Department, Office of Force Management and Personnel, where we have put up assistance
40 programs for military service members who are exiting. And you may be aware of the
41 fact that, in the last year or so, specifically over the last six, eight months, we have started
42 a program called TAP, Transition Assistance Program, where we have fairly good, I
43 believe, preseparation --

44 A PARTICIPANT: We can't hear back here. (Inaudible).

1 A PARTICIPANT: It's broken.

2 COMMISSIONER DAHLMAN: Is the mike off? I'm speaking directly
3 into the mike, so, if you can't hear me, it's because the mike is off.

4 COMMISSIONER BERTEAU: It has just been reconnected. Try it again.

5 COMMISSIONER DAHLMAN: Can you guys hook me up now? Can
6 you hear me now?

7 A PARTICIPANT: No.

8 MR. HANLEY: Then aim your voice out and talk loud, I guess.

9 COMMISSIONER DAHLMAN: How about (inaudible)? Give me your
10 mike.

11 A PARTICIPANT: Try this mike.

12 COMMISSIONER DAHLMAN: Hello, can you hear me now? Yes, that's
13 better.

14 As I said, we have started, in the last six, eight months or so, a program
15 called TAP, Transition Assistance Program, which includes preseparation counseling, how
16 to produce -- now it died again -- how to produce a transcript where you get credit for
17 individual skills training undertaken in the military, for college courses and community
18 college courses taken outside, trying to match the skills that you have in military jobs with
19 individual skills you might need in civilian jobs.

20 And I just wondered if you are aware of that program and if you think that,
21 even though we have started that program on, I believe, a fairly gender-neutral basis, that
22 there are some specific things that we ought to do for women to make that program better.
23 And -- well, why don't you try to answer that first.

24 MS. KEMP: Yes, I am aware of the program. In fact, one of the pivotal
25 players is the Department of Labor's Veterans Employment and Training Services. I'm
26 very aware of the program. But what happens so often in programs is not the program
27 curriculum or the content, but many times -- and this is no indictment of anyone -- many
28 times it's the program worker, if they do not ask the right questions, posture themselves in
29 a way that they really get the information across to the women veterans. This has just
30 traditionally not happened.

31 We've had a lot of programs that have served women, but they have not
32 served them in a quality kind of way, simply because the worker did not understand the
33 socialization of the female.

34 COMMISSIONER DAHLMAN: Yes.

35 MS. KEMP: And I'm not saying that that's true with all programs or with
36 any of them, but we just need to be very certain that those TAP programs have the kind
37 of personnel that, you know, can cause women to get the most out of the training
38 program.

39 COMMISSIONER DAHLMAN: Look, I'll be glad to take whatever
40 material you give me and bring it back to Millicent Woods, who runs the TAP program
41 and see what she can get out of it.

42 MS. KEMP: Okay.

43 COMMISSIONER DAHLMAN: And give me your address so she can get
44 back to you if she needs to.

1 MS. KEMP: All right. Thank you.

2 CHAIRMAN BERTEAU: Ms. Kemp, if I could ask you one other
3 question.

4 You mentioned three categories of women to be covered in the programs
5 here. Two of the categories, military women and female spouses of military members, at
6 least in theory, stand alone as somewhat unique in society. The third category that you
7 mentioned -- and I have two questions -- was women who work in military jobs, if you
8 will, production. Did you mean by that both federal civilian employees as well as defense
9 industry workers?

10 MS. KEMP: Yes. I mean those women who are working on military
11 installations as civilian employees.

12 CHAIRMAN BERTEAU: But not necessarily like the McDonnell Douglas
13 employees?

14 MS. KEMP: And I mean those also.

15 CHAIRMAN BERTEAU: You mean both of those.

16 MS. KEMP: Right. Right.

17 CHAIRMAN BERTEAU: There would you make a distinction, and, if so,
18 on what basis would you make a distinction of different programs for women who are
19 defense industry workers as compared to women who are industry workers but not in a
20 defense industry?

21 MS. KEMP: I had not thought of making a distinction between the two,
22 but it might be well to do that, simply because of the nature of the work in the military
23 versus the nature of the work in the defense production industries. You know, many
24 women who are civilian employees in the military may be doing what is traditionally
25 nontraditional work for women in the private sector or in the other public sector. So there
26 may need to be that kind of a distinction.

27 CHAIRMAN BERTEAU: All right. Any other questions?
28 Charlie.

29 COMMISSIONER MAY: Mr. Chairman, for our audience, you might
30 mention that we have a seventh Commissioner.

31 CHAIRMAN BERTEAU: I'm sure the witnesses realize that, but she's not
32 here today.

33 COMMISSIONER MAY: We do have a seventh Commissioner, Ms. Robin
34 Higgins, who is the representative of the Department of Labor. And, if she were here, she
35 would probably have questions we haven't thought of, but I know she knows how to find
36 you and can get ahold of you as she needs.

37 MS. KEMP: Yes, thank you. Both Ruth and I, and many other women,
38 were pleased to know that Ms. Higgins is a member of this Commission.

39 And one final thing I would like to say is that we're all aware that on
40 military installations there are support systems. There's a superstructure there. I don't
41 need to tell you people that. We know that there is. And that includes available,
42 accessible child care. When women leave that, that will not be that available to them.

43 And we need to be very conscious of that and think about the other kinds
44 of support services that women are going to need, and certainly one of them will be

1 affordable, accessible child care. It's not available in the private sector or outside of the
2 military, or it's not available to the extent it should be.

3 Thank you very much.

4 COMMISSIONER MAY: I'd like to ask Ms. Margolin a question of
5 clarification. Did you ask that the DCA funds be distributed in some way? My
6 understanding is that the DCA funds require a project to respond to, and is there a project
7 that has been submitted?

8 MS. MARGOLIN: No, but I would love to be encouraged to develop such
9 a project in Region 7 with the Department of Labor, based on the "earn and learn"
10 concepts, if that is the procedure, and then to submit it.

11 COMMISSIONER MAY: Somebody may be able to correct me, but I
12 believe that is for DCA funds; is it not?

13 David, do you know?

14 CHAIRMAN BERTEAU: That's our understanding, and we can get back
15 to you if that's not the case.

16 MS. MARGOLIN: All right. And how soon you need it.

17 CHAIRMAN BERTEAU: Right.

18 COMMISSIONER MAY: Because some of the problem with the
19 distribution of those funds has to do, as I understand it, with the fact that communities,
20 organizations, and so forth, have not come forward with the appropriate project paperwork
21 that allows the DCA funds to be expended.

22 MS. MARGOLIN: Well, thank you for that. As I conceive this project, it
23 would be one of minimum cost, you know, but taken under by the community in many
24 ways. Thank you.

25 COMMISSIONER MAY: Thank you very much.

26 CHAIRMAN BERTEAU: Thank you, ma'am.

27 Charlie, if you would pass those down from her stack there.

28 Thank you very much.

29 MS. KEMP: Thank you for your interest in women.

30 MR. HANLEY: Ladies and gentlemen, we have an extensive list of people
31 who signed up to testify. Not all of them have shown up yet; some have shown up
32 considerably early. In order to expedite the proceedings and not to be guilty of a
33 mindless adherence to the schedule, we're going to go with the people that we have
34 available; and the next one is Mr. Elmer Dapron. Mr. Dapron represents Cornucopia
35 Communications in St. Louis.

36 I urge any of you who have a time to testify which is a long time from
37 now, please don't go away because we may very well be able to get you through earlier.

38 CHAIRMAN BERTEAU: Mr. Dapron, is that the correct pronunciation?

39 MR. DAPRON: That's it. Thank you.

40 CHAIRMAN BERTEAU: All right, sir. Welcome and have at it.

41 MR. DAPRON: Thank you very much for this opportunity to visit with
42 you today. I don't have a written text. I only found out about this yesterday afternoon,
43 and it wasn't enough time to do this. However, I hope I have something that's meaningful
44 enough that you will get some insight into this dilemma that we face.

1 I got involved in this area as a candidate for Governor of Missouri in the
2 recent primary. I'm not here as a candidate today; I'm here simply as a private citizen.
3 For the record, I am the owner of an advertising agency that specializes in transportation
4 marketing. If there's one sector of the defense industry that lends itself to conversion to
5 civilian pursuits, it's the aviation sector. My remarks have to do with general aviation, not
6 the building of giant airliners, not the building of business jets, but of the smaller
7 airplanes that are typically piston-powered, single-engine airplanes. That industry today is
8 dead. It has been destroyed. And if we could simply do something to revitalize it, it
9 would mean the creation of many tens of thousands of jobs. And whatever it takes to do
10 that, we must do it.

11 When I was involved with the business, Cessna, Piper, and Beech, in a
12 typical year, made 15,000 airplanes. Think about that. We get involved with making 10
13 or 15 F-15s, or 25, and we think that that's monumental. I want you to think about this,
14 15,000 airplanes a year, just these small models from three companies. And that business
15 today is gone.

16 So what we can do about product liability? If we resolve this product
17 liability lawsuit, I believe that we could, by using the old tooling that's still available, dust
18 it off and get it back to work. We could build 10,000 of these airplanes very easily in
19 1993. Now, that doesn't require an influx of federal money. It doesn't need retraining.
20 We have everything necessary to build these airplanes, but it's not going to be easy to do.

21 Now, to further explain some of my qualifications for talking about this, for
22 nine years I worked at McDonnell Douglas, and I was in production control. I know quite
23 a bit about the manufacturing of airplanes.

24 For five years, I worked at a large advertising agency that handled the
25 Cessna account, and I personally did all of the advertising for all of the Cessna airplanes.
26 I am the person that introduced the F-16 fighter plane for General Dynamics. And, more
27 recently, I have been involved with the utilization of small airplanes in the distribution of
28 air freight. I did this for Union Pacific Air Express.

29 Now, think what it would mean if we could build 10,000 airplanes of this
30 type next year. Here in St. Louis we have thousands and thousands of McDonnell
31 Douglas workers who are out of work and will never again get a job in general aviation or
32 any other kind of aviation. Those jobs are gone forever. Let's hope they are anyway. I'm
33 a Marine Corps veteran of two wars. I don't want see any more war. So let's hope that
34 the Cold War is over and that we can turn this enormous capability we have, that has
35 served us so well, into peaceful endeavors.

36 The first thing that the Commission might want to consider is that they
37 realize how important this general aviation sector is. I think, if you just thought about
38 that, if you thought about the tens of thousands of jobs that I spoke about that could be
39 created, I think that would put it in perspective. Let's, as a national purpose, as a national
40 goal, resolve that we are once again going to have a general aviation capability in this
41 country.

42 I know it sounds very simple, very easy. But over the last few months, as I
43 was running for Governor of Missouri, and this was a very important part of my platform,
44 I desperately tried to contact the unions here in St. Louis. When I worked at McDonnell

1 Douglas, I was a shop steward in the machinists' union, and I was a very good one. And
2 I thought that I could sit down and have a dialogue with Mr. Williams and his other
3 business representatives, and they refused to answer my telephone calls.

4 I suggest to you that this isn't only a job for the Commission; we ought to
5 do some soul-searching here in this country. We face a crisis here. And Mr. Williams
6 did say we can't have adversarial relationships, but we have to have more plain, old-
7 fashioned cooperation, as well.

8 I talked to the Regional Commerce and Development Association here in
9 St. Louis, and I explained what I was trying to do. I said, "I need people who are
10 innovators, people who have ideas, people who have vision in banking and insurance,
11 because these are two of the most important things that we're going to have to have."
12 They told me they could send me a list of companies that would be interested. And when
13 I pressed them further, they admitted that those names would come from the Yellow
14 Pages. I think that's tragic. I think that's tragic and inexcusable.

15 We have to do something to get more people involved with this. Where's
16 the passion for this? Where is the concern? Where's the hopes and dreams? This is the
17 United States of America. Have we completely lost our resolve? I can't tell you how
18 disappointed I have been, but I'm still encouraged because we can and we must do this.

19 The first thing that the Commission might take back to Washington is a
20 recommendation that the White House get behind the legislation that Senator Kassebaum
21 and Representative Glickman, both of Kansas, of course, have introduced in Congress
22 called the Tort Reform Act. If we could do this, we could do a lot to resolve this product
23 liability disgrace that we're facing.

24 There's a lot of opposition to this from lawyers, a lot of opposition. It
25 never comes out of Senator Metzenbaum's committee. And general aviation believes it's
26 because of his support from the American Bar Association. I don't know if that's true or
27 not, but, whatever the reason, we have to get that Tort Reform Act out of Congress.

28 Here in St. Louis County, for example, we have more lawyers than they
29 have in the entire country of Japan. That gives you some idea of how these people are
30 looking for work. And we simply cannot let the lawyers determine whether we're going
31 to have a general aviation industry in this country or not.

32 The second thing you can do is to see if the people at the FAA can cut
33 down on the paperwork. These are conscientious, dedicated people whose paramount
34 interest is safety; it's not shuffling papers. They are fine people. But they have made it
35 impossible -- impossible -- for new airplanes to be developed. By the time the sequence
36 of events has taken place, so much money has been invested in these projects it's
37 impossible.

38 We have right here, at the Spirit of St. Louis Airport, Mr. Bede who has
39 this wonderful little two-place jet airplane that he can't get certified, not because it's not
40 capable of flying, but because he can't afford the work that's necessary to get it certified
41 through the FAA.

42 As a result of this, and as an aside, I might remind you that sometimes
43 there is some military work that is coming in from outside the country that we ought to
44 take a look at. Mr. Bede can sell his little jet plane, which would serve very well as a

1 trainer, for under \$600,000. The airplanes that we're most likely to get for the military
2 will come from overseas, and they will cost two and one-half to three million dollars.

3 I think that we ought to take a hard look at what the FAA is doing. And
4 please remember what I said: I'm not condemning the FAA. They do a very wonderful,
5 conscientious, thorough job. But we have to do something about the paperwork.

6 Finally, and in conclusion, I would say that we have to try to find some
7 capital somewhere, and I think that it's probably going to have to come from the federal
8 government. I don't know where else it can come from. Certainly, I have found no one
9 in this area who has the slightest interest in investing money in general aviation.

10 I thank you very much for this opportunity to talk with you today.

11 CHAIRMAN BERTEAU: Thank you, Mr. Dapron. You sort of answered
12 the key question I had. You had focused on product liability as the root cause that needed
13 to be resolved in order to address your proposal there. My question was going to be,
14 where does the capital come from, once that product liability -- I think you answered that
15 with your final question there.

16 MR. DAPRON: I do want to say one more thing about that. If we dusted
17 off the jigs and fixtures and tooling, we could make Cessna 172s and Piper Cherokees in
18 the same configuration we did before. And that would give us some breathing room. It
19 would buy us some time so that we could then start to invest in more sophisticated
20 technology. There is a ready market for those airplanes, even though they haven't been
21 built for more than 10 years.

22 CHAIRMAN BERTEAU: Do you have any information about the size of
23 that market?

24 MR. DAPRON: The market is -- as I said, I'm sure we could build 10,000
25 airplanes in 1993, because the technology is already there. All we have to do is to get the
26 tooling to crank it up, and let's go to work.

27 CHAIRMAN BERTEAU: Yes, sir, I understand how many we could build.
28 What I'm wondering is, how many would people buy? Do you have any information
29 about that?

30 MR. DAPRON: Well, the flight schools, if you go around and talk to those
31 people, they are desperate for Cessna 150s. I'm sure that we could sell 5,000 of those
32 without any problem whatsoever. And remember, too, that much of our capability has
33 been used overseas. In a normal year, we used to sell 30 to 40 percent of our production
34 overseas. So that would help enormously with the balance of payments, would it not?

35 CHAIRMAN BERTEAU: All right. Any other questions?

36 COMMISSIONER DAHLMAN: I have a quick one.

37 CHAIRMAN BERTEAU: Yes.

38 COMMISSIONER DAHLMAN: If I can borrow the mike. From two
39 perspectives, I have a great interest in what you said. I'm a private pilot, and I love the
40 Cessnas, would love to see some new ones built. But the more direct professional interest
41 is that I also sit on committees back in the Pentagon that deal with the acquisition of the
42 new trainer aircraft. And you referred to the fact that all the candidates that we're going
43 to buy come from abroad.

44 But back to the tort question, which I think is critical. I don't think we're

1 going to save the aircraft industry or the private aviation industry by doing a complete tort
2 reform. That's just too big a mountain to climb. Do you have any particular ideas of
3 what might be done to save private aviation as a part of the total tort reform package?

4 MR. DAPRON: I am, obviously, a supporter of general aviation, even
5 though I never had the courage to get a private pilot's license. Cessna expected everyone
6 that worked on their business to have one, and I always managed to avoid getting one. I
7 couldn't hear the radios over my screaming when I was flying in those things.

8 (Laughter)

9 MR. DAPRON: Seriously, I really don't know. There just is an enormous
10 market for these airplanes. I have been conservative in my estimates. I wouldn't doubt
11 that we could sell, within the next five years, certainly 50,000 of these airplanes around
12 the world. Just build good airplanes, price them right.

13 The Beech Bonanza, which was a standard airplane at one time, with the
14 forked tail, sold for about \$40,000. Today that airplane sells for \$400,000, 10 times what
15 it used to. It's not much different than what it was. It has one tail now instead of the
16 forked tail, but it's essentially the same airplane. And most of that additional cost is in
17 product liability. There is no way of getting around it. We have to do something about
18 that.

19 CHAIRMAN BERTEAU: Thank you very much, sir.

20 MR. DAPRON: Thank you again.

21 MR. HANLEY: Our next witness is Mr. Gerald Ide.

22 CHAIRMAN BERTEAU: Mr. Ide, is that the correct pronunciation?

23 MR. IDE: That's right.

24 CHAIRMAN BERTEAU: All right. Welcome, sir, what do you have for
25 us?

26 MR. IDE: It's a pleasure to be here. I'm pleased that you came to St.
27 Louis, and I'm pleased that you took the time and the interest to hear what we have to say
28 here.

29 I'm a steward for McDonnell Douglas. I'm really the steward for the union,
30 but I work at McDonnell Douglas. I work in an outlying building which is product
31 support. They build the kits and stuff that goes into all this fancy hardware that flies
32 these planes. And the trend at work, it's not a very good one for the employee. I'm
33 fortunate; I've got 25 years there. I'll probably stay there and retire. But anybody with
34 less than 10, it's really questionable, and it's a major concern.

35 I sent in an outline, and I've given you three different individuals. When
36 you have a chance, sit back and read it. And these are down-to-earth lives that the
37 defense program is going to touch, and some of it more serious than others.

38 I'm going to give you an example about a girl that's in there. It's in this
39 brochure. It's a shame. She's a single parent, two kids, no support, no unemployment,
40 been laid off for a year and a half -- I think a year and eight months, really -- where
41 suicide is becoming an option. The children are what's stopping her from this. And she
42 comes out and she talks to you, and what do you say to somebody like that? How can
43 you console her? You can't.

44 I've been fortunate. I've never had to draw unemployment benefits. That's

1 good. Well, hers are gone. She doesn't have insurance. She drives from place to place
2 trying to get a job. When she does, it lasts for a few weeks, and she is laid off. She has
3 no income. She has a roommate that works, and she is able to help with taking care of
4 her kids and that type of thing. That's just one example, and it's rampant. It's throughout
5 the whole plant that way.

6 I'm a vice president of a local lodge, and, after the meeting, the food barrels
7 are empty. They're empty. There's no food. I don't know what the answer is to that
8 other than jobs, whether it's in the defense industry, or training, or whatever else.

9 I do know, and I can speak for Cass, because I talked to him about it over
10 here, that we'll do anything. We'll meet with you. We'll meet with your assistants. We'll
11 provide you a room for your training. We'll provide whatever assistance we can do --
12 whatever assistance we can do. That district, at our local lodge, will be there for you to
13 do this. We're there to help. That's what the membership base is all about.

14 And it's a shame because, when I went to work there, I was one of 25,000.
15 Now I'm one of about nine. That's a big difference.

16 I've got a short story about this guy who is 33 years old. He has been at
17 Mac about four years, but he first became involved with the Department of Defense back
18 in 1980 when he joined the Navy. The Navy took him under its wing, taught him a hell
19 of a skill, a great skill. He became a flight line mechanic. He's got the A&P license; he's
20 got the certifications for the commercial planes. He's got all the qualifications. He did
21 this for eight years during his time in the service.

22 He came to work at Mac, and it went smooth for him until the recession
23 came, and the cutbacks came, and peace broke out. He looks at it, he says, "Well, what
24 peace dividend do I have? I spent four and a half months living in a different state, trying
25 to keep my household here, my family going, you know, driving back on weekends."

26 I'm talking about from Tulsa, Oklahoma, coming back here to St. Louis, on
27 weekends, when he didn't have to work, just to keep his family together. There to make
28 the money, because you don't have these jobs here in St. Louis other than at McDonnell
29 Douglas and at the airport.

30 I heard the gentleman from Indiana, and they're going to go into that
31 certification program. I wish him lots of luck. We just went through it. We spent a year.
32 We had a program set up in our district where we had the classes come through. It
33 worked; we taught them. They're unemployed now; they're unemployed. That's not what
34 we're here for, you know.

35 How do you tell somebody -- and I heard the gentleman from McDonnell
36 Douglas talk about his cyclical commercial industry, how it goes up and down. Well, tell
37 somebody, how do you balance a diet on something that goes up and down? You don't
38 do it. It's impossible to do it.

39 If I can leave you with one thing, it is that, if there's anything we can do
40 here in the St. Louis area -- and I'm not talking just for myself. I'm a machinist. I belong
41 to a great organization, but they are also affiliated with the AFL-CIO. And Cassel
42 Williams was here before me, and I know that he's very active with the AFL-CIO. If it
43 takes that, we'll deal with that.

44 If it takes going statewide, we'll go statewide. And if it even means going

1 to Washington, D.C., to our international -- and we have done that, on the sale of the F-
2 15s to Saudi Arabia -- whatever it takes, we want to see our industry survive, but we want
3 to see our people survive as well.

4 CHAIRMAN BERTEAU: Thank you, Mr. Ide.

5 I think what you've done is focus on two very important parts of this whole
6 issue: One is that while the narrow approach of this Commission is looking at the defense
7 drawdown, it's also true there's a larger question, because it's a defense drawdown in the
8 context of a larger economic recession, which obviously complicates things considerably.
9 You've also focused on the very real human aspect of the impact of being laid off and
10 having difficulty finding suitable employment afterwards.

11 Let me ask you, if I could, one of the things we've wrestled with a lot --
12 and we don't have an easy answer for this, but I think your view on this is important to us
13 -- there were plenty of people laid off because of the defense reductions; there were also a
14 lot of people laid off for other reasons, just because of the economy as a whole.

15 Is it fair to expect that the people laid off for defense reasons should be
16 treated the same or different than workers laid off for other reasons?

17 MR. IDE: Well, I represent people from both sides of the Mississippi
18 River, Illinois and Missouri. And an issue that I'll take with you is the one -- the boy's
19 name is John, in this little brochure -- he spent eight years in the Navy, and they taught
20 him a trade that he was going to be able to take and last him the rest of his life. And
21 somebody broke the promise. You know, it's fine that he's out there, but he doesn't have
22 anyplace to go to now with that same skill that he has. I think he deserves consideration.
23 I really do think he deserves consideration.

24 He went to American Airlines. He worked there for, I think, four and a
25 half months. He came back to a company that had -- all of a sudden their orders had
26 blown up. They had gotten way behind, and they really needed this manpower. Well,
27 they called him back. He had seniority rights. They called him back; he came. Did he
28 make the right choice? That's questionable. But I do know where his family was; his
29 family was right here. His heart is here.

30 And I think that the government should take that into consideration when
31 they deal with this issue, that there are a lot of people who would have gone about their
32 lives doing other things, you know.

33 I work with Class C explosives in, you know, the canopies. Now, they
34 don't put those on tractors. They just don't have those things like that in the automobile
35 industry or streetcars. What am I going to do with that skill that I have, the trade that I
36 have? I'm going to use it wherever I can or else learn more skills, new skills. I'm not
37 beyond learning new skills, but --

38 CHAIRMAN BERTEAU: Well, I think we do thank you. I look forward
39 to reading those. I know those are just representative stories, and there are probably
40 thousands more like them all around. And all I can promise is that we'll do what we can.

41 MR. IDE: That's all we're asking. That's all we're asking. Just don't forget
42 the workers out there; just don't forget them. Appreciate it.

43 CHAIRMAN BERTEAU: Thank you, sir.

44 MR. HANLEY: Thank you, Mr. Ide.

1 CHAIRMAN BERTEAU: Can I get that from you? Is that your package
2 there?

3 MR. IDE: He's got it.

4 CHAIRMAN BERTEAU: He has it already?

5 MR. HANLEY: We're all set.

6 CHAIRMAN BERTEAU: All right. Thanks.

7 MR. HANLEY: Our next witness is Sister Susan Jordan of the Midwest
8 Coalition for Responsible Investment.

9 CHAIRMAN BERTEAU: Sister Jordan, welcome.

10 SISTER JORDAN: Thank you.

11 CHAIRMAN BERTEAU: I appreciate your patience. You've been sitting
12 out there very patiently from the beginning.

13 SISTER JORDAN: That's okay. I'm eagerly listening to what I hear, I
14 think.

15 I'm Sister Susan Jordan. I'm the coordinator of the Midwest Coalition for
16 Responsible Investment. It's a coalition of church-related groups in the greater St. Louis
17 and surrounding areas. Members of our coalition, as shareholders, then, use the strategy
18 of addressing corporations about many issues which we believe are critical in our society.

19 I would like to tell you what we've done in the last 15 years in addressing
20 corporations about the topic of economic conversion.

21 Since at least 1977, which is 15 years ago, representatives of these church-
22 related groups from the greater St. Louis and surrounding area have been writing letters,
23 asking for meetings, submitting shareholder proposals, speaking at annual meetings, in
24 order to contact McDonnell Douglas and other military production related companies
25 about their weapons-making and the need for economic conversion.

26 Most of these efforts have been by means of shareholder proposals, usually
27 with a minimum number of shares, since the groups concerned did not want to make
28 profits from military-related production. During these years, our most urgent requests to
29 McDonnell Douglas and other companies have been to ask the companies to make plans
30 for alternative production, not just diversification, but real and well-planned alternative
31 production, including serious job retraining, plant retooling, identification of new product
32 lines after assessing larger community needs.

33 The purpose, all these 15 years, was to avert layoffs and economic
34 disruption when military production lines ended. Unfortunately, significant alternative
35 production planning did not happen. Our metropolitan area, as well as other areas of our
36 country, have seen and continue to see massive layoffs, plant shutdowns, reorganizations
37 which help company bottom lines but not the workers laid off, and other dire
38 consequences as these decisions have their many effects on families and on the larger
39 community.

40 Our experience these 15 years has been that our message, for the most part,
41 fell on deaf ears. And now, faced with the situation that fewer and fewer military-related
42 dollars are available from the United States Government, we see some companies
43 engaging in very active campaigns to sell military products in foreign arenas. We find
44 our McDonnell Douglas, for example, continuing to lobby for the sale of F-15s to Saudi

1 Arabia.

2 Because of years of dependence on military production, corporations do
3 have difficulty converting to nonmilitary products. That dependence and companies'
4 refusal to put adequate financial resources and human effort into research and feasibility
5 studies are hampering serious efforts at the creation of alternative and nonmilitary
6 products.

7 The civilian sector, so robbed of scientists and engineers, research and
8 development funding by military production for so long, needs the scientists' and
9 engineers' skills and the research and development funding so the United States can
10 compete with other industrialized nations and have productive jobs.

11 If, indeed, the United States is ever to be part of a really new world order,
12 weapons producers, such as McDonnell Douglas, will have to be willing to step away
13 from their own status quo and their current mind-sets. They will have to look seriously,
14 with unprecedented creativity and appropriate human and financial resources, for
15 alternative products that will help all people.

16 There continues to be evidence that it is very difficult for companies to take
17 the initiative on their own to do some kind of alternative production planning in the scope
18 that would be necessary for success. We believe that these companies need the benefit of
19 well-considered, real government commitment and assistance for this planning to take
20 place and to succeed. I urge this committee to recommend that.

21 I hope corporations that now depend heavily on military weapons
22 production can break out of this dependency and move into a future where a company's
23 products will not only provide jobs on all levels but will also promote the well-being of
24 all. I hope there will be more community economic development funding, job training,
25 and small business funding.

26 I hope the report of this committee will ensure that companies are urged by
27 the government, that helped make them so dependent on military production, to do
28 alternative production planning and that they are assisted in doing so by that same
29 government.

30 Thank you.

31 CHAIRMAN BERTEAU: Thank you, Sister Jordan. Let me ask a couple
32 of questions, if I could.

33 You stated, I think, that companies -- and you used McDonnell Douglas as
34 your example -- have not pursued the kind of planning that you're talking about here. Do
35 you have any reasons that you would put forth as to why they haven't done that? Is it just
36 because there's no government assistance available to them that is the reason they haven't
37 done that?

38 SISTER JORDAN: In my opinion, as I talked about their mind-set and the
39 status quo, I don't think they have thought beyond that and given serious consideration to
40 other possibilities, nor have they turned to their workers and people who have worked for
41 them, like this other gentleman who I heard before, which is where I think a company like
42 that could be getting the best results and some of the most creative thinking, given the
43 people who have to do that thinking are always concerned about bread on the table.

44 And that's why we find many of the workers, of course, willing to lobby for

J

1 F-15s. But if there were some arrangement whereby the creative type thinking -- break
2 that mind-set, push the status quo aside, there could be something coming, and that would
3 be my hope. I don't have the answer of --

4 (End side 2, tape 1.)

5 COMMISSIONER KNETTER: -- my guess. The difficulty of defense
6 firms that they've had historically in entering commercial enterprise is perhaps part of the
7 reason we're here as a special Commission to study what is different about defense and
8 why this hasn't happened.

9 SISTER JORDAN: I would wonder how much of what they told you
10 would be something that would be real efforts at alternative production, as opposed to
11 efforts at diversification by buying other companies that would help the bottom line but
12 aren't ways of providing for the actual workers who are the ones in question when these
13 kinds of things happen.

14 COMMISSIONER KNETTER: Yes, that's a fair point. I guess it's not
15 clear -- if diversification isn't successful, if they can't sort of run an already existing
16 enterprise that they buy, perhaps it would be difficult to make a transition into producing
17 with your own work force, too, for commercial application.

18 CHAIRMAN BERTEAU: I think what that points out is some of the very
19 critical questions as to what are the elements of success in those kinds of undertakings,
20 either for a large company like McDonnell Douglas, or perhaps for a smaller company, or
21 even a brand new start-up company. And one of the reasons that we are trying to find as
22 many examples as we can of people who have tried to do this is to see if we can't
23 somehow identify some of the key ingredients of success.

24 Let me offer to you, if you do have any examples of success stories that in
25 your work you've become aware of, we would appreciate it if you would pass those along
26 to us. I think you probably have our address.

27 SISTER JORDAN: I do.

28 CHAIRMAN BERTEAU: We would welcome any of those that you or
29 any of your other members of your groups could come up with, because we feel we can
30 learn a lot from those things that have been tried. You learn a lot from failures, but you
31 learn how to do it best from success.

32 SISTER JORDAN: That's right.

33 CHAIRMAN BERTEAU: Charlie.

34 COMMISSIONER MAY: Would you agree that the nation needs a
35 minimum defense industrial base, perhaps to be determined, because of the changing
36 world order?

37 SISTER JORDAN: I think I would probably agree, subject to future
38 thought, that probably every nation needs some kind of defense. But we certainly do not
39 need it in the degree that we have had it, and we certainly do not need it to the degree
40 where our scientists and engineers and research and development monies are so involved
41 there that the civilian sector loses. And we are now seeing evidence of how our civilian
42 sector, I believe, has lost.

43 COMMISSIONER MAY: Thank you.

44 CHAIRMAN BERTEAU: Thank you very much.

411

1 SISTER JORDAN: You are welcome.

2 MR. HANLEY: Mr. Chairman, we have nine more people on the schedule,
3 five of whom are here.

4 CHAIRMAN BERTEAU: Let us proceed with those in the order that they
5 are on the schedule.

6 MR. HANLEY: The next witness is Professor Fredric Raines of the
7 Department of Economics at Washington University in St. Louis.

8 Dr. Raines.

9 CHAIRMAN BERTEAU: Dr. Raines, welcome.

10 DR. RAINES: Thank you.

11 If I could start by borrowing that pitcher of water.

12 CHAIRMAN BERTEAU: Absolutely.

13 MR. HANLEY: Sure. Here's one right here. Let me pour you some.

14 CHAIRMAN BERTEAU: You can even borrow a cup to put it in.

15 MR. HANLEY: We have some cups.

16 CHAIRMAN BERTEAU: Welcome, sir.

17 DR. RAINES: Thank you very much.

18 MR. HANLEY: I'm going to have to ask you to cuddle up to the
19 microphone a little bit there, sir.

20 DR. RAINES: I have a paper I would like to distribute at this time, as well
21 as a copy of my remarks that will assist you.

22 CHAIRMAN BERTEAU: Thanks.

23 DR. RAINES: I'm going to send one copy down in this direction. I
24 brought seven along, thinking there would be seven. There are about four copies there.
25 In addition, this is a copy of my remarks today that perhaps will assist you. And, finally,
26 as time permits, I may make reference to some charts and tables that derive from some
27 research that a colleague and I did a couple years ago that are relevant to the St. Louis
28 situation. So let me distribute those as well. I think, finally, we are ready to get started.

29 CHAIRMAN BERTEAU: All right, sir. We are at your disposal.

30 DR. RAINES: I welcome the opportunity to testify before the Defense
31 Conversion Commission on the important topic before us. Reductions in defense spending
32 made possible by the end of the Cold War present both a challenge and an opportunity for
33 defense-intensive communities such as St. Louis and for our overall economy.

34 My academic interest in the economic effects of defense spending -- to sort
35 of put you in perspective where I'm coming from -- is an outgrowth of my background in
36 labor economics and in U.S. economic growth, productivity, and technical change. Like
37 others you've heard today, I am hopeful that St. Louis will address the challenges of
38 defense cutbacks in a constructive, community-wide effort that will lead to renewed
39 growth and opportunity for the region.

40 In the limited time I have, I would like to focus principally on some
41 research that Professor Laurence Meyer and I have engaged in on the role of defense
42 spending for economic growth and the economy's technological base. This ongoing
43 research is reflected in a paper that I just distributed to you.

44 After summarizing some of the conclusions based on this work, the scope

1 of which is the overall economy, I will attempt to draw some conclusions for the St. Louis
 2 regional economy. In doing so, I am guided in part by a survey-based model of the St.
 3 Louis defense economy, developed by Professor Carol Evans and myself, and some of that
 4 is summarized in the tables and charts that I handed out.

5 The paper distributed addresses the economic effects of defense spending
 6 from two distinct but related perspectives. The first approach is to simulate the longer-run
 7 effects on economic growth of reductions in defense spending by means of a large-scale
 8 macroeconomic model of the U.S. economy.

9 The second approach is to estimate productivity equations for the total
 10 private economy that include as arguments, as explanatory variables, defense as well as
 11 productivity-enhancing factors that may have been influenced by defense spending, such
 12 as nondefense R&D and public investment.

13 Turning to the first approach, the name of the model is "The Washington
 14 University Macroeconomic Model." It's a large-scale forecasting and policy analysis
 15 model developed by Professor Meyer and some associates, and it's used to simulate, in
 16 this case, long-run effects on productive capacity and gross domestic product of a reduced
 17 defense spending path relative to the base case.

18 The base case assumes that defense spending is fixed in real terms at the
 19 1991 level through 1997, and then thereafter remains a constant share of gross domestic
 20 product. The simulated case for the spending reductions cumulate to 28 percent below the
 21 base case by 1997 and thereafter remain a constant share of gross domestic product.

22 These cases correspond to alternative paths given in the February 1992
 23 Congressional Budget Office study. Emphasis is on the supply effects and not on short-
 24 run demand impacts. I need to point that out. This is accomplished by assuming an
 25 accommodating monetary policy that stimulates the economy so that aggregate demand is
 26 maintained.

27 The net result is that defense reductions relative to the base case lead to a
 28 modest increase in gross domestic product, amounting to about two-thirds of a percent
 29 over the base case by the year 2001. By that year, plant and equipment investment is
 30 about 20 percent higher, and the capital stock is about two, two and a quarter percent
 31 greater. Growth in the private, nonfarm economy is larger, 1.3 percent over the base case
 32 due to the military-to-civilian employment shift of about 600,000 workers.

33 The basic mechanism leading to these results is that reduced defense
 34 spending makes feasible lower interest rates -- that's the rabbit in the hat -- hence higher
 35 levels of investment. There are a lot of countervailing forces working in positive and
 36 negative directions, having to do with sort of saving rates, foreign saving, and private
 37 saving, and so forth, and these are discussed in the paper.

38 The Washington University macroeconomic model treats technical change,
 39 hence shifts in the production function and productivity equations for the economy, as
 40 exogenous. It attempts to figure out what they are and put them in as trend variables.

41 The second approach that we took in this paper attempts to remedy this
 42 omission. There are several channels by which defense expenditures might potentially
 43 have a significant role influencing technology and productivity.

44 CHAIRMAN BERTEAU: Dr. Raines, if I could interrupt for a moment.

1 DR. RAINES: Surely.

2 CHAIRMAN BERTEAU: I know you have a well-prepared thing here. I
3 think we would like to make sure that we have a couple of minutes for questions at the
4 end. Perhaps if you could summarize the rest of your paper and leave us a little time for
5 questions, it would benefit us both.

6 DR. RAINES: Okay. What, basically, we did was to estimate a
7 productivity function that took into account various types of research and development.
8 That was our specific influence; in particular, defense research and development, federal
9 nondefense research and development, and civilian research and development. In addition,
10 we included capital expenditures on the infrastructure, the capital stock of infrastructure.

11 The basic conclusions were that basic defense research and basic civilian
12 research both significantly contribute to productivity growth. This is the private, nonfarm
13 economy. However, unlike civilian applied research and development, defense applied
14 research and development appears to have no significant impact on productivity growth in
15 the private sector. And this is crucial. This is the key part of this finding.

16 Basic research in defense helps productivity; applied and development
17 research does not. But the problem is that 3 percent of the total defense R&D budget is
18 for basic research, and 97 percent is for applied research and development.

19 Then we go on and we talk about nondefense basic research that plays a
20 role and also the fact that the capital stock in infrastructure, that is the infrastructure
21 variable, turns out to be highly significant for both labor and multifactor productivity.

22 The overall conclusion drawn, then, is that defense spending reductions
23 channeled into civilian R&D and infrastructure investment represent a tangible source of
24 productivity growth that should not be overlooked. Most particularly, the conversion of
25 applied defense R&D into civilian R&D should be vigorously pursued.

26 During the 1980s, much, if not most, of the applied defense R&D went into
27 strategic weapon systems that are no longer needed. The feasibility of transferring R&D
28 resources from military to the civilian economy is suggested by the significant
29 contribution of basic defense research to productivity.

30 The question arises as to how this fits into the St. Louis picture. We did
31 some earlier work, Carol Evans and myself, in which we surveyed defense contractors in
32 the St. Louis area. We know that there has been an elimination of thousands of jobs that
33 has already taken place.

34 Based on survey work and a model developed that is now about two years
35 dated, we estimated that the direct and indirect impacts on employment in the St. Louis
36 area would be about 25,000 jobs. That was based on a projection that defense industries
37 would cut expenditures by about 15 percent. That now seems modest, and it seems that
38 job losses ultimately will far exceed 25,000.

39 However, the implication to be drawn is not that we should dig in and
40 attempt to resist otherwise justified defense cuts in order to protect these jobs. Defense
41 spending cannot and should not be justified as a public employment program. More to
42 the point, this approach is not needed. The evidence with the macro model is that, with
43 appropriate policies, reduced defense spending will actually stimulate economic growth.
44 Moreover, the stimulus will be enhanced to the extent that we can shift resources, R&D

1 resources and other resources, into a civilian research and infrastructure investment.

2 I think that our survey of adjustment strategies of contractors suggests that
3 this will strike, in general, a responsive chord with these companies. They indicated that,
4 by a substantial margin, surveyed contractors were interested in expanding existing
5 commercial markets or developing new commercial markets rather than downsizing. And
6 I emphasize this is a survey that included big and little defense contractors.

7 These firms also indicated they would be confronted with a wide variety of
8 problems: marketing, export, technical information, finance, need to retrain, need to
9 obtain skilled workers. The specifics are diverse and individualized is what we found.

10 Thus, we conclude that what is needed to facilitate this transition that the
11 overall cut in defense spending will allow, we need a set of locally developed and
12 operated conversion programs, responsive and flexible to the variety of needs and to the
13 needs as they arise. I think the control must be local, however, but probably we need the
14 assistance, financial and otherwise, of the federal government.

15 Thank you very much.

16 CHAIRMAN BERTEAU: Thank you, Dr. Raines. Let me just ask a
17 factual clarifying question, and I know there are some other questions from other
18 Commissioners.

19 You mentioned 25,000 or more employment losses and predicted that those
20 might go higher because, in fact, your base was predicated upon a reduction which may
21 go deeper than you evaluated a couple years ago. Those numbers, however, range from
22 the period of 1989 to 1994.

23 DR. RAINES: That's correct.

24 CHAIRMAN BERTEAU: So is it fair to say they would include, for
25 example, the 12,500 reductions that Mr. Caldwell already said McDonnell Douglas had
26 taken earlier on in the presentation today?

27 DR. RAINES: They would in fact include the summer of 1990 reductions,
28 which were 3,000 or 4,000, but none of the subsequent reductions. So we're probably
29 already ahead of that schedule.

30 CHAIRMAN BERTEAU: Okay. Mike, you have a question?

31 COMMISSIONER KNETTER: Yes. First, if I could just say that Professor
32 Meyer's and Professor Raines' study is one of the most detailed studies of which I'm
33 aware. I've actually seen this before. And just to lend some credibility, to those in the
34 audience who may not be aware, Professor Meyer's model is one that the Council of
35 Economic Advisers in Washington subscribes to and uses quite often for analysis.

36 I guess the results that you have gone over for us, which is, basically, the
37 long-term benefits for the economy as a whole are positive, from defense cuts, is
38 something that's widely agreed upon in the economics profession. As a professional
39 economist, I wouldn't question your conclusion, but I would ask to you the question, what
40 would you say to the displaced worker in this area, and how do you explain what you
41 referred to as "the rabbit in the hat," this elusive process by which the economy generates
42 these jobs?

43 This is a question we're getting repeatedly as we go around to industries in
44 the St. Louis area.

1 DR. RAINES: Okay. There are really two questions. Let me quickly
2 answer the latter one. Perhaps I chose the wrong metaphor. Indeed, the reduced defense
3 spending puts less pressure on deficits and allows lower interest rates, and it's really that
4 process that stimulates private investment.

5 COMMISSIONER KNETTER: The government needs to borrow less from
6 credit markets, so there's more available for private firms.

7 DR. RAINES: That's correct. Right. That's the primary mechanism.

8 The second part is more difficult, but that's why I attempted to link this to
9 our earlier work based on the St. Louis economy. I think there are regions in trouble. I
10 gave this paper in California a couple months ago and was advised that they are in really -
11 - if you think St. Louis is bad, California defense workers are in worse trouble.

12 I think that's why we need to stimulate and develop a set of programs, and
13 I think they have to originate and come together by local groups willing to share the work
14 and the responsibility. The St. Louis Economic Adjustment and Diversification
15 Committee would be a good example of that, but other groups as well, Sister Mary Ann
16 McGivens' (phonetic) group that has attempted to formulate and look at the situation for
17 small machine shops and other related groups. I think we need a lot of local effort.

18 What I'm saying is, the potential is there. The transition problem has to be
19 that we have to move these resources from the defense sector to the nondefense sector.
20 So probably what we need is individualized programs that fit specific communities rather
21 than a sort of a cookie-cutter thing that comes from the federal government.

22 COMMISSIONER DAHLMAN: I have a quick question too.

23 CHAIRMAN BERTEAU: All right.

24 COMMISSIONER DAHLMAN: Your simulations in your model and your
25 discussion have kind of one interesting little implication for the conversion discussion, and
26 I wanted to hear your thoughts on it. You explicitly assume that technological progress is
27 exogenous in your model and yet that not be applicable to the defense industry, as you
28 might quickly agree with me, because a big purpose of defense spending and the
29 acquisition part is exactly to drive the technological envelope forward. And we're doing
30 that in many different ways.

31 The conversion implication of your work, I think, is that there is very little,
32 indeed, probably zero spillover effect from increased technological progress in the military
33 sector to civilian projects that might come out of it and, indeed, you know, that there are
34 no spinoffs, in other words, from improved military technology to the civilian sector.

35 I agree with what Mike said that, even if you put something like that in, it
36 might not, in the end, change the conclusion that defense is a drag on growth. But I just
37 wanted to hear your thoughts on that particular issue.

38 DR. RAINES: Yes. That's why I said this is really a two-part paper. In
39 the second part we attempted to address your concerns. And perhaps I wasn't entirely
40 clear. We found, in fact, that basic defense research had as much impact, has as high an
41 elasticity, on productivity as civilian research. On the other hand, the applied and
42 development part, which is the larger share by far, seemed to have no effects, an
43 insignificant coefficient, no matter how we tried it.

44 What I'm suggesting is that, now that we need less development work on

1 the sophisticated weapon systems, that releases resources that can be used by civilian and
2 private firms in the nondefense sector, and that will have a technological impact, because
3 applied research and development in the civilian sector has a very important impact on
4 technology.

5 CHAIRMAN BERTEAU: Dr. Raines, I want to point out for the record a
6 couple of things in response to your comments just then.

7 One is that the basic research part of the defense budget, in terms of the
8 1993 budget currently being debated by Congress and the projections out over the next
9 few years, there's actually almost a 10 percent growth in that budget in 1993 over 1992.
10 And in the ensuing years there is a sustenance of that, although a reduction in the
11 remainder of the research and development accounts. Of course, within the overall federal
12 budget, the dollars associated with research and development are at or near all-time highs
13 in that regard. So I think we will look at that and the trends in that in light of your work
14 here, and I think your papers are very helpful in that regard.

15 DR. RAINES: Thank you.

16 CHAIRMAN BERTEAU: If there are no other questions, I would also tell
17 you we were in Southern California a couple of weeks ago. We told them, if they thought
18 it was bad there, they ought to come to St. Louis.

19 So I thank you very much.

20 DR. RAINES: Thank you.

21 MR. HANLEY: Thank you, Dr. Raines.

22 The next witness is Mr. James Gilbert, a private citizen. He is president of
23 Maximum Rehabilitation Consultants.

24 Welcome.

25 MR. GILBERT: Good afternoon.

26 CHAIRMAN BERTEAU: Mr. Gilbert, welcome.

27 MR. GILBERT: Thank you. This was a last-minute effort on my part.

28 CHAIRMAN BERTEAU: You won't be graded. We'll just take all your
29 information as best you can.

30 MR. GILBERT: I received your letter this morning, and I didn't have a
31 bio. So what I think I need to do is introduce myself.

32 I have 22 years' experience as a subcontractor to the defense industry, and
33 it's in that capacity that I come. I've changed businesses. In that, I have participated in
34 the design and the manufacture of parts. I was in the nonferrous casting and machine
35 shop and was directly involved in the production of parts for Polaris submarines, three
36 different grenade launcher systems, and a lot of weaponry, as well as support equipment.

37 I was also a sales manager for a different foundry, machine shop, that was
38 the "Small Business of the Year" a few years ago, and they received that award based on
39 their performance on the four-tube grenade launcher that's mounted on the armored
40 personnel carriers.

41 That's a piece of my history. Another piece, in addition to my consulting
42 businesses that I am maintaining currently, I'm involved in a new project here in St. Louis
43 that is targeted towards job creation on the North Side. I don't know if you have any
44 familiarity with North St. Louis, but it's kind of our Beirut. It's a ghetto; it's burned out;

1 high crime, high drugs, no jobs, no hope. It's just the worst of the Rust Belt.

2 CHAIRMAN BERTEAU: Even Kamal's (phonetic) has left and moved
3 downtown.

4 MR. GILBERT: Yeah, yeah. One, I think that the black community buys -
5 - I don't know that I know this -- but it's something like \$584-million worth of food, and
6 only one of the chains of supermarkets has been willing to put any stores in that
7 community. Okay.

8 And the reason that this is relevant is that the problems of trying to create
9 jobs for people who are poor, without skills, et cetera, is not dissimilar to the problems of
10 taking skilled people and finding new endeavors, in terms of employment. It's a little bit
11 more difficult because they don't have the skills. They don't have the education. They
12 don't have, oh, let's say, the work ethic. There's a lot of other problems, but it's a
13 program that's attempting to deal with that, and I think that the problem about economic
14 conversion, they're similar; they're related.

15 Now, the rest of this is opinion, okay, but I believe that -- you know, we
16 have had budget cuts. We have had loss of jobs. We have experienced problems as a
17 result of that. We're probably going to see more budget cuts. And, if we don't do things
18 differently, our level of discomfort, the pain and suffering on an individual level as well
19 as a social level, is going to increase. And I'm hoping that you agree with that.

20 And I think that, if we do nothing, I'm sure that we've already seen it has
21 an impact on the incidence of domestic violence in families, suicide, divorce. People lose
22 their homes; they lose their businesses, et cetera.

23 I personally was faced with a conversion decision between 1980 and 1982,
24 and it had to do with some other markets. We were not dedicated completely to the
25 defense industry. So I can speak to what an owner/operator of a firm -- whose largest and
26 maybe most profitable markets are drying up -- in addition to trying to run the business --
27 and your basic overhead doesn't really go down. Your fixed costs are fixed; they stay the
28 same. But your revenues are dropping because your sales are off, and so you have that
29 impact.

30 A lot of the problem in the defense part of this is, it's feast or famine. Big
31 contract; I've got work for a couple of years. I can go into it thinking I've got a couple of
32 years of time, that I'll find some other opportunities and make the thing. But it's pretty
33 good business. I'm busy; I'm feeling good; and I never get around to doing it. Then the
34 contract is winding down, and I'm looking for another job, another contract, more work
35 somewhere else.

36 But my revenues now -- and, in the beginning, you see, I have a full pipe,
37 but my production is going to be downsized. So I have really kind of a surplus of money
38 coming in relative to my current operation. But it's usually not enough, unless we're
39 successful in finding subsequent contracts to take up the slack.

40 So the big problem that I experienced, and that I think is typical, has to do
41 with identifying new products, new markets, creating new customer relationships. Often,
42 this also involves creating new supplier relationships, because, if the products are
43 materially different, I may need to do things that I've never done before.

44 Just that puts me at a competitive disadvantage to people that are already in

1 those industries, you know. I have to learn how to produce more efficiently. I have to
2 find ways to do things better than people that have already been established. And it all
3 boils down to capital. That's simplistic, but that's a major, major part of it. How do I, as
4 a small businessman, finance this conversion, this transition? And many of us don't.

5 I had never heard Dr. Raines' paper, but I kind of get to the same place for
6 different reasons. I'm impressed with his conclusions because of the R&D. I think that
7 there are tremendous opportunities in this country today. Mass transit -- and I heard
8 recently about MagLev -- magnetic -- you're aware of that. Phenomenal. We've got the
9 pollution problem. We've got oil. We've got all these things. But it takes a lot of
10 money.

11 I don't know how that can be handled outside of government participation.
12 I think that's a necessary element if we're going to do conversion in a productive way
13 rather than a destructive way. I think another area is, it's really important to provide
14 incentives to businesses that are operating.

15 You know, we hear so much about the capital gains tax. I don't know if
16 you're in a position of that being a part of your recommendation, but it seems to me that
17 that's not as effective a tool as some others might be. I think of the Smith-Corona
18 situation up in New York right now where they are closing down the jobs. They made, I
19 believe, \$14 million in New York, feel that they can no longer afford to stay in New
20 York. They're going to Mexico with the expectation of carving another \$18 million in
21 costs out of their production.

22 They're profit maximizers, and that's what built this country. But we also
23 have a system of incentives to help people do things differently. Years ago, we didn't
24 have the transnationals, you know. We didn't have -- capital didn't move so easily, et
25 cetera.

26 So it seems to me an example would be the investment credit. You buy a
27 machine; you get a credit off your taxes. All right. Make it very direct. I would favor
28 exploring an add-on that, if that machine tool was manufactured in the United States, you
29 get an additional credit. I think that that would need to be accompanied with penalties. If
30 that tool wound up in Puerto Rico, or Mexico, or Taiwan, then I think we, as a nation,
31 have the right to get our money back. We can't just make it another technique to help the
32 capital flight.

33 But that, I think, is a more direct way. And then businesses have additional
34 opportunities, you see. Another way to look at this is, imagine the impact on the machine
35 tool industry. Okay. We have tax credits; we have businesses making money; so,
36 therefore, they are going to be prone to invest.

37 I now have a company producing machine tools in this country with a
38 certain fixed cost structure. I increase my sales. I'm starting to spread my costs out over
39 more units so that my direct costs -- I'm sorry -- my overhead cost per unit is reducing,
40 which means I can lower my price; I can produce more units; spread it out more. I can
41 export, you see. And it's those kinds of things where other opportunities then will
42 definitely occur as a result of that.

43 In terms of R&D, again, I don't pretend to be nearly as astute or informed
44 as Dr. Raines, but I read that, of all the industrial nations on this planet, the only one that

1 spends less per capita than the United States on R&D, civilian R&D, is Ireland. And I
2 think that we need to look at that. If Dr. Raines' conclusions are correct, it sounded to me
3 like basic R&D, regardless of the origination, whether it was military or whether it was
4 civilian, has the same effect.

5 So, if we shift monies away from one to the other, I think another aspect is
6 that we can target the expenditures. We can define projects like MagLev. And we can
7 start to solve some of our other social problems in addition to creating jobs, you see, so
8 that it's a much healthier transition, a lot of social benefits beyond just jobs. And that's a
9 big one, you know. I don't want to say that's not a problem. But does that make sense?

10 CHAIRMAN BERTEAU: Yes.

11 MR. GILBERT: Last one: In my business I have a lot of relationships
12 with a lot of people who also were involved in the manufacture of parts for the defense
13 industry.

14 When we talk about retraining -- and, again, this is just personal -- but I
15 think of many of the hourly workers, they are some of the most highly trained, highly
16 skilled people in the labor force. And if you think about a CNC piece of equipment, a
17 machine tool of some sort, a part is a part. The machine is indifferent as to the end use,
18 you know, as long as it's maintained, and it's set up correctly, and it's operated
19 appropriately.

20 The operators would also be indifferent. You know, they can read the
21 prints, set up appropriately. They do what they need to do. The tools are ground
22 properly, et cetera. I don't think that the retraining effort at that level will bear nearly the
23 yield that it will in terms of management.

24 I think that, when we do business in the government sector, meeting
25 government specs and the additional layers of overhead and the costs that I take on and
26 the additional risks -- I testified years ago before Senator Danforth, and I brought two
27 parts: one a federal inspector had deemed inappropriate, scrap; and the other was
28 acceptable. He asked me which was which.

29 And this was a benchmark. It was for the Army Corps of Engineers. This
30 bronze plaque has some inscribing on it and a stem that gets driven into the ground, and
31 you grow weeds over it, okay, and it's for surveys; it's a survey marker.

32 So visually, it does two things: It's a mast that you find, and you stamp
33 some numbers on it. He could not tell which was defective. I mean that's stunning. And
34 the result of that is that I charged the government two and one-half times what I would
35 charge a private contractor. And that's not getting my full costs back, you see.

36 So the management of firms in these endeavors is real different. And, you
37 know, again, in a capitalistic society, we need to provide incentives, but I think that
38 government is going to have to take a lead role. I don't think that we out here,
39 individually, are going to be able to command the resources to get it done effectively.
40 We're going to be fragmented in our efforts.

41 So I think that my basic point here is that there needs to be a well-thought-
42 out plan. And I like Dr. Raines' idea of at least a large degree of local control, but
43 resources need to come from other places.

44 I mean, if you look at St. Louis, if you go down to the next major

1 intersection east of here and you walk three blocks south, there's a pile of rubble, and it
2 used to be the Manchester viaduct. It was a large, very busy, highly traveled viaduct.
3 Trains run underneath. There are businesses, streets. It was blocked off several years
4 ago. It took the city, I don't know, more than a year to get the money -- and
5 there are the matching funds. I don't know if you know how that works. But all the city
6 had to do was come up with 25 percent of the renovation, and the federal government
7 provided it with the 75 percent. We finally got the money, started tearing it down, and it
8 fell down. And it was just the grace of God that people weren't killed, literally, I mean.

9 So we don't have the resources to do this on a local level. I just can't
10 imagine where we would find it, you know. But I think we can look into areas like St.
11 Louis and see plenty of opportunities, plenty of opportunities.

12 So I think that's -- if you have any questions --

13 CHAIRMAN BERTEAU: Mr. Gilbert, thank you.

14 Any questions?

15 (No response.)

16 CHAIRMAN BERTEAU: Thank you very much. We appreciate the
17 benefit of your experience on that.

18 MR. GILBERT: All right. Thanks.

19 CHAIRMAN BERTEAU: Mr. Hanley, we'll take one more, then I think
20 we'll take a break.

21 MR. HANLEY: All right. The next witness is Marjorie Reinhart, who is a
22 volunteer with the Economic Conversion Project.

23 CHAIRMAN BERTEAU: Ms. Reinhart, welcome.

24 MS. REINHART: Thank you.

25 CHAIRMAN BERTEAU: You are with, is it the St. Louis Economic
26 Conversion Project?

27 MS. REINHART: As a volunteer.

28 CHAIRMAN BERTEAU: Okay.

29 MS. REINHART: I just have a very short message, so I'll just read it.

30 The federal government has been employing people as a side effect of
31 military expenditures. To lessen the impact of the military cuts, repair our infrastructure,
32 and strengthen our educational and social welfare institutions, the government must invest
33 in society, thereby creating new jobs to replace those lost. But it can continue to do this
34 indefinitely only because private ventures generate the increased value out of which taxes
35 can be paid.

36 Therefore, the government's most important long-term contribution to a
37 healthy economy is to create a favorable climate for profitable enterprises which produce
38 useful commodities or services, maintain a positive environment for their employees and
39 neighbors, and provide good jobs for the citizens of their communities. Contrary to
40 popular belief, and despite the favored status enjoyed by powerful industries, most such
41 jobs are supplied by companies which employ fewer than 500 people, and those
42 companies are the real backbone of a stable economy.

43 A Missouri firm, the Springfield Remanufacturing Company, which was
44 featured on the PBS MacNeil-Lehrer Hour, is an example of the sort of enterprise we need

1 to foster. They open all financial statements to employees, and everyone participates in
2 setting the goals and standards on which stock options and bonuses are based. They have
3 been extremely successful because employees are not just doing their jobs but are all
4 pulling together for mutual benefit.

5 The federal government can develop enabling legislation to encourage other
6 small firms to commit themselves to these democratic methods. And this little company
7 was part of the great International Harvester Corporation, which was losing money on it
8 by more traditional methods. I was quite impressed when I saw that on MacNeil-Lehrer,
9 and particularly because it was from Springfield, Missouri.

10 Okay. That's all.

11 CHAIRMAN BERTEAU: Would you happen to have any source where we
12 could get more information about that particular company?

13 MS. REINHART: I do except, temporarily, my cousin has borrowed it, but
14 I can get it back. Because this man, I got his name from the Springfield Chamber of
15 Commerce. His name is Jack Stack.

16 CHAIRMAN BERTEAU: That's not hard to remember.

17 MS. REINHART: Yes. And I wrote him and asked him for more
18 information, and he didn't answer, and he didn't answer. And I thought, oh, well, he
19 thinks I'm a flake, you know. But all of a sudden he sends me this book, The Great
20 Game of Business, and it was published by not any vanity company, by a real -- I forget
21 which one, but one of the well-known publishing companies. And my husband and I each
22 read it in a day, which we've never done for anything other than a murder mystery before
23 that. It was just fascinating.

24 CHAIRMAN BERTEAU: The Great Game of Business?

25 MS. REINHART: The Great Game of Business.

26 CHAIRMAN BERTEAU: I think we can probably find that back in
27 Washington. I suspect there's a copy somewhere there.

28 MS. REINHART: The Library of Congress.

29 CHAIRMAN BERTEAU: If we don't, we know how to get ahold of you,
30 and we'll come back and ask you about it.

31 MS. REINHART: Okay.

32 CHAIRMAN BERTEAU: Thank you very much.

33 MS. REINHART: Thank you.

34 CHAIRMAN BERTEAU: We may steal from some of your words or
35 maybe even from Jack Stack's title as we go about drafting our own report. Thank you
36 very much.

37 COMMISSIONER: Are we going to take a break, Mr. Chairman?

38 CHAIRMAN BERTEAU: Mr. Hanley, if we could take a break.

39 MR. HANLEY: Mr. Chairman, you want to take a break now? Why don't
40 we take a break for 15 minutes and come back at half past 4:00.

41 CHAIRMAN BERTEAU: All right. And we'll try to be very quick, a
42 quick 15 minutes.

43 MR. HANLEY: A quick 15 minutes.

44 (A recess was taken.)

1 MR. HANLEY: Shall we?

2 CHAIRMAN BERTEAU: I think we should go ahead and begin. Mr.
3 Dube will join us shortly.

4 MR. HANLEY: All right. I know that Commissioner Dube is on his way.

5
6 Let's see. We're a little bit ahead of schedule, which is excellent. The next
7 witness is Margaret Gilleo.

8 I hope I'm pronouncing that right, ma'am. Gilleo?

9 MS. GILLEO: Gilleo.

10 MR. HANLEY: Gilleo. Margaret Gilleo from the St. Louis Economic
11 Conversion Project.

12 CHAIRMAN BERTEAU: Ms. Gilleo, welcome.

13 MS. GILLEO: Thank you.

14 CHAIRMAN BERTEAU: I appreciate your patience. You've been most
15 accommodating to us, sitting out there waiting.

16 MS. GILLEO: Thank you for being here and for giving me the opportunity
17 to speak.

18 One of the disadvantages, or maybe it's an advantage, of going late in the
19 day is, a lot of what I had to say has been said in one form or another by other witnesses,
20 so I'll be brief. Some of it may be a little bit redundant.

21 Just to summarize briefly, as I'm sure you all know, the change from a
22 defense base to a peacetime economy has occurred other times during this century. And,
23 of course, most dramatic was right after the Second World War, but the Second World
24 War was a period of four years in which both the industrial sector and the civilian sector
25 had mobilized for the war effort. No one expected this situation to be permanent.

26 Yet, even though everybody knew that there was going to be a return to
27 business as usual, the federal government played a very important role in facilitating the
28 transition back to a peacetime economy. We all know about the GI bill, the Office of
29 War Mobilization, and federal procurement agencies prepared for termination of defense
30 contracts and made partial payment to contractors, which then served as vital sources of
31 working capital, especially for small contractors.

32 Tax policy allowed companies to charge off new investments in plant and
33 equipment in five years, and this amortization policy gave a boost to wartime earnings so
34 that companies were able to finance the postwar investment needs, and the ample supply
35 of capital drove interest rates to record lows.

36 By contrast, after the Korean War, instead of a period of growth, there
37 occurred two recessions. According to a report by the Office of Technology Assessment,
38 "Government macroeconomic policy was a major cause of the postwar recessions. No
39 fiscal policies were adopted to offset the decline of military spending." That's a direct
40 quote from that report.

41 The Cold War, as you know, lasted 10 times as long as World War II, and
42 both industry and civilians began to regard the defense portion of GNP as permanent and
43 to plan accordingly. And I think that's a major difference that we're facing right now.
44 For example, around one-third of American scientists and engineers have gone to work in

1 the military industry. When the president of SONY was asked why his company was so
2 successful, he answered with a question. He said, "When was the last time an MIT
3 engineer went to work for a television company?"

4 If scientists and engineers who have been laid off cannot find work in
5 which they can utilize their training and talent, I think we will have sacrificed some of the
6 greatest resources of this country.

7 Now, as you know, in St. Louis one out of six jobs depends on military
8 spending. The big focus, of course, has been on McDonnell Douglas, which employs
9 approximately 26,500 people. ESCO employs another 2300. But, equally important, there
10 are around 1500 subcontractors, and it's estimated that they employ another 30,000 people.

11
12 Most of these arms contractors and subcontractors are metal, plastic, or
13 electronic job shops with fewer than 50 workers. They employ highly skilled men and
14 women able to set up and run three or more machines to close tolerances, read blueprints,
15 and run repairs and make programming changes. However, they have relied on the arms
16 market for one-third or more of their contracts, and that has led them into the dilemma in
17 which they now find themselves.

18 Of course, when McDonnell Douglas lays off 10,000 people, it makes
19 headlines. If one of these small companies lays off 5 or 10 people, or even goes out of
20 business, no one pays much attention, but the cumulative effect is devastating.

21 The examples of the past can certainly be a guideline for accomplishing a
22 successful transition today. As in the years following World War II, the assistance of the
23 federal government in the form of financial aid and incentives is needed today for the
24 retraining of managers, engineers and scientists, and production workers.

25 It has been estimated that at least a year is needed for a company to change
26 from military to nonmilitary production. Managers need to rethink and replan their
27 business strategies. Most of them are unaccustomed to thinking in terms of
28 competitiveness and cost containment. They are not accustomed to competing with other
29 companies in the commercial area. Engineers and scientists are certainly capable of
30 redirecting their abilities, but this can't be accomplished overnight.

31 As you know, military products are designed to operate under extreme
32 conditions, and cost is not an overriding issue in planning. Yet commercial products have
33 to work well under normal conditions, but they have to be produced at competitive prices,
34 at the lowest possible, reasonable cost. So both researchers and managers have to adopt a
35 new paradigm of designing and manufacturing quality products at low cost.

36 Marketing for commercial success is a vital skill unknown to many in the
37 defense industry. The concept is easy enough for them to grasp, but the companies need
38 consulting assistance if they are to operate successfully in these markets. One suggestion
39 is to offer companies government loans for consultants, which could then be forgiven, in
40 whole or in part, if the company adopts the advice of the consultants.

41 Another area of assistance for small firms is the promotion of flexible
42 manufacturing networks, or FMNs. These consortia have been successful in Denmark,
43 Germany, Italy, and Japan. Two or more small companies, with different capabilities, join
44 together to bid on a product which is too big for any one of the companies. When the

1 project is completed, they disband.

2 There is cross-fertilization in this process which benefits the companies,
3 who learn new methods of production, marketing, accounting, and management. In some
4 cases, the consortium itself develops loan packages for its members, seeks new markets,
5 and houses research and development efforts on their behalf.

6 While companies need to learn the ropes of competition, they also need to
7 learn this form of cooperation in certain instances. European and Asian small
8 manufacturers are finding niches where flexibility, timeliness, quality, and innovation are
9 demanded. FMNs can make it possible for a region to choose deliberately to seek one or
10 more useful production niches. In Akron, Ohio, for example, several firms developed the
11 capacity to bid on and to manufacture, jointly, kitchens for people with disabilities.

12 Frequently, foreign military sales are promoted as a way to fill the gap left
13 by the cutbacks of the Department of Defense. This helps temporarily, it is true, but these
14 sales do not offer a long-term, viable plan for corporate growth and profitability.

15 Furthermore, they can destabilize an already precarious world political
16 situation. One has only to look at sales to the Middle East, which have increased around
17 2,700 percent since they really began, and I don't think anybody considers the Middle East
18 a secure or stable area, in spite of the increase in arms purchases by that area.

19 I think it was Mr. Williams who spoke of the need for transportation and
20 the commuter train which was recently inaugurated here called "Metrolink." I attended
21 the inauguration, and I was really disturbed because the train, which is a wonderful little
22 train, was built by companies in Germany and assembled by their subsidiary in California.
23 And here we have this wealth of talent, engineers, scientists, managers, laborers, and yet -
24 - all these people out of work here -- the trains were built in Germany and assembled in
25 California.

26 Furthermore, our public transportation system here is woefully inadequate.
27 A recent Fortune magazine study reported that good public transportation is essential for
28 attracting business to an area. I don't know if any of you gentleman have tried to take
29 public transportation, but it's pretty hopeless.

30 Our city grew up because of its location at the juncture of two great rivers.
31 River transportation is another relatively inexpensive way to transport goods, but the cost
32 of shifting from train to truck to barges, and vice versa, is prohibitive because of poor
33 road and rail links to harbors.

34 Many of our roads and bridges are in need of upgrading and repair.
35 Someone said, before me, the collapse of the bridge along King's Highway. Sewer lines
36 have been deteriorating for some time. All of these are essential supports for industry,
37 plus the fact that the repairs in themselves generate jobs and stimulate the economy.

38 Additional opportunities exist in the areas of environmental clean-up and
39 the development of new environmental techniques. Someone mentioned earlier safe
40 alternative forms of energy, which we need to do research on and develop. Advanced
41 communications systems, medical technologies are other areas of opportunity.

42 It is well known that many products developed by the defense industry do
43 have commercial applications, but certainly financing and government assistance are
44 necessary if companies are to make this transition.

1 So that is really all I have to say. If you have any questions, I would be
2 happy to answer them.

3 CHAIRMAN BERTEAU: Ms. Gilleo, you mentioned an acronym, FMNs,
4 or FMCs, or -- could you --

5 MS. GILLEO: Everything is an acronym here. Flexible manufacturing
6 networks. The concept really came out of Italy, and it has been successful in many areas
7 in Europe. In fact, I think in Italy now everybody wants to have their own little business,
8 because you don't have to have a great big capital investment. You can have a very small
9 company but then link up with other companies in order to produce a product.

10 CHAIRMAN BERTEAU: You, of course, described succinctly some of
11 our experience after World War II. We, in fact, have some work underway trying to look
12 at the examples of previous drawdowns.

13 MS. GILLEO: Good.

14 CHAIRMAN BERTEAU: If you are aware of any material that's available
15 that we may want to make sure we take advantage of, because you cited some federal
16 government roles here that I was not personally familiar with, I would appreciate it if you
17 would pull those together for us and send a list along of things we should look at.

18 MS. GILLEO: Sure. I would be glad to. Okay.

19 CHAIRMAN BERTEAU: Any other questions?

20 COMMISSIONER: Ma'am, you made mention of everybody is aware of all
21 these commercial applications of technology. We have had difficulty, I think, finding
22 examples, either of successes in doing that or examples of technologies that are just ripe
23 for the picking. If you have any of those examples, either way, we certainly would
24 appreciate your assistance.

25 MS. GILLEO: Well, certainly in the area of microelectronics, I think some
26 of these certainly have commercial applications. Structural materials. I think medical
27 applications.

28 COMMISSIONER: If you think of any others or you have any literature
29 cites along those lines, we would certainly appreciate your communicating with us and
30 letting us know.

31 MS. GILLEO: Sure. All right.

32 COMMISSIONER: Thank you very much.

33 CHAIRMAN BERTEAU: Thank you.

34 MR. HANLEY: Let's see. Is Mr. Tom Regan here by any chance?

35 (No response.)

36 MR. HANLEY: Okay. Well, then, our next witness is Mrs. Joan
37 Botwinick, who represents Adequate Housing for Missourians.

38 CHAIRMAN BERTEAU: Welcome, ma'am.

39 MS. BOTWINICK: Would you like a copy of my statement?

40 MR. HANLEY: That would be great.

41 CHAIRMAN BERTEAU: That would be great. Thank you.

42 MR. HANLEY: For those who weren't here when we did the
43 administrative announcements, just to remind you that, if you do have a written copy,
44 printed copy, of your statement, we'll be happy to put it in the record whether or not you

1 go through it. If you would like to summarize, that sometimes gives the Commission a
2 little more time for give-and-take.

3 CHAIRMAN BERTEAU: Ms. Botwinick, is that how you pronounce your
4 --

5 MS. BOTWINICK: Botwinick.

6 CHAIRMAN BERTEAU: Botwinick. Welcome. We look forward to
7 hearing from you.

8 MS. BOTWINICK: Thank you.

9 I'm Joan Botwinick, former president and now a board member of Adequate
10 Housing for Missourians, a nonprofit advocacy group in the St. Louis metro area. We're
11 trying to help mitigate the crisis in low-income housing and homelessness in St. Louis.
12 Thanks for the opportunity to present our views on the impact of defense spending cuts
13 and what might be done to help our region adjust to the dislocation.

14 There are many constructive ways to redirect the funds and to reemploy
15 laid-off defense workers. I regret that there has not been more advance notice of this
16 hearing

17 -- I think I heard about it on Sunday -- because I feel that there would be many more
18 people testifying if they had known about it.

19 In preparing my statement, I have checked this week with some of the
20 shelter directors for homeless people and others who try to provide affordable housing for
21 our low-income citizens. Our organization, which is a coalition of many groups in this
22 area interested in low-income housing, has endorsed the ideas which I am presenting to
23 you today.

24 A number of families who have been laid off from McDonnell Douglas are
25 now beginning to show up in the homeless shelters. We know that there will be more.
26 Not only do we need to find housing and create new jobs for them, but we have a backlog
27 of thousands of families who have been victims of poor economic conditions and have
28 found no safety net to catch them.

29 In the past decade, there has been an increase of 11,000 more low-income
30 renters in this area, but a decrease of 30,000 affordable rental units. And about 30,000
31 affordable homes have been destroyed during this period. Money needs to be shifted into
32 job training and job creation programs, especially in the construction field. Small
33 construction businesses need to be created with a representative proportion of minority
34 owners and employees. New affordable housing must be built. Funds for rehabilitation of
35 vacant housing, of which we have many, funds for that are needed. Low-income
36 homeowners who have the capability to fix their own homes should be given interest-free
37 loans and grants. These measures will help to rebuild deteriorating neighborhoods and
38 give residents a stake in their community.

39 Since community development block grant funds -- that's a federal program
40 you may have heard of -- have been cut by at least half in the past decade, these losses
41 should be restored, and federal legislation needs to be changed to allow those funds to be
42 used for rental subsidies to very low income families. In the past, the great majority of
43 community development funds have gone to middle- and upper-income people. We have
44 studies here in St. Louis that show that.

1 Years ago, our government estimated that we needed 640,000 more
2 affordable units each year to house all our low-income citizens. We have never come
3 close to that figure. Meanwhile, much affordable housing has disappeared, and we have
4 more people in need.

5 We are now fighting, this year, just to keep 50,000 new Section 8 housing
6 vouchers in the new 1993 legislation. That's for the entire country. But in St. Louis
7 alone we have 29,000 families on waiting lists for low-income housing. So you can see
8 how inadequate that amount of new housing is. Here in St. Louis, we're lucky to get 100
9 housing vouchers each year.

10 Another program we would support are federal tax credits for low-income
11 housing. Each year we have had to fight to extend this, but we feel it should be extended
12 indefinitely. This is to build low-income housing.

13 Now --

14 ...this program is not very cost effective, we all realize that,...

15 MS. BOTWINICK: -- but it's the only program we have right now that
16 creates low-income housing.

17 The new HOME program, which HUD has established, H-O-M-E, should
18 be generously funded. There should be more funds put into that program, and that gives
19 families two- year housing subsidies until they can get back on their feet.

20 The Executive Office of the U.S. Government has provided the information
21 that from 1977 to 1987 federal defense spending for the Pentagon went up 166 percent,
22 while federal housing assistance went down 62 percent.

23 A study released in June of 1992 by the independent research group, Center
24 on Budget and Policy Priorities, says that the affordable housing crisis in St. Louis is
25 more serious than in the nation as a whole. Seven out of every eight poor households
26 pays more than 30 percent of its income for rent, and this amounts, in numbers, to 74,000
27 households in our region. Only 28 percent of those families who are eligible for low-
28 income housing assistance actually receive it.

29 Where I live, in St. Louis County, which is a supposedly affluent county,
30 there are 250 families per month calling the homeless hotline. They are either homeless
31 or about to become homeless. We hope the federal government will use its defense
32 savings to help the cities rebuild and provide the safety net it once promised.

33 This is the end of my testimony, but I thought of one other thing today. I
34 don't know if you have planned to do this, but it seems that to have one person in each
35 community assigned from the federal government to organize the conversion activities in
36 that community would be helpful, and he would have perhaps a small committee of
37 residents working under him from different sectors of the community. It seems to me, if
38 each large city had one person like that, that would be a helpful way to start. Now,
39 maybe we already have that. I really don't know.

40 CHAIRMAN BERTEAU: We're not aware of anybody who has that
41 specific task, although there are federal representatives for a variety of agencies
42 represented at the regional offices, Kansas City being the region for this area, as you are
43 no doubt familiar.

44 Ms. Botwinick, you have heard a number of folks tell us today, and we

1 have heard elsewhere as well, that the people being affected by defense layoffs and
2 defense drawdowns should in fact have special programs created for them. What I think I
3 hear you saying is, in fact, that there are others who may need it equally as much, and
4 that, in fact, a distinction should not be made. Is that a fair interpretation of your
5 presentation today?

6 MS. BOTWINICK: I think, in fact, that if you concentrate only on those
7 who are presently going to be laid off, this could be a divisive thing in communities,
8 because you then set up groups of people who have been ailing for years, because they
9 have been laid off from other sectors of the economy, feeling in competition with the
10 defense workers who will then be getting a lot of assistance, and they will be getting
11 none, even though they have probably suffered for a much longer period.

12 So I think that that would be deleterious to the community to just
13 concentrate on the defense workers.

14 CHAIRMAN BERTEAU: Well, your numbers are certainly very
15 impressive in terms of the need out there. I thank you very much for the way you have
16 laid that out very clearly for us.

17 Any other questions?

18 COMMISSIONER DUBE: I have one quick question, Dave.

19 CHAIRMAN BERTEAU: Yes.

20 COMMISSIONER DUBE: You described one program, I think it was
21 income tax credits for construction of low-income housing, as not very cost-effective.
22 What exactly did you mean by that, or what was your message in that? I'm not sure I
23 heard quite what you intended to convey.

24 MS. BOTWINICK: Well, tax credits that are given to developers of low-
25 income housing usually end up -- the housing usually ends up costing an awful lot of
26 money. And I don't know the details of this, but I know that a number of developers in
27 housing have said that. But they are for it because, at the present time, that's all we have.

28 But I think that even figures given by low-income housing people are much
29 higher. There's a group -- maybe you have heard of James Rouse from the Enterprise
30 Foundation. He has done a lot of low-income housing around the country and also has
31 developed our Union Station here and Faneuil Hall in Boston. He has a program called
32 City Homes, in Baltimore, and they really spend a lot less money on housing. They have
33 a large book that shows how you can save money in rehabilitating housing.

34 Housing doesn't have to be so fancy. It doesn't have to cost millions and
35 billions of dollars. And I've even seen some of the literature that, you know, we would
36 say is our own, that we would approve of. I find that the figures are much higher than
37 necessary. But here in St. Louis the Housing Authority in the city here has claimed that
38 they couldn't fix the apartments because each apartment needed something like \$10,000 to
39 fix it.

40 Well, we have had a fix-up program here. In fact, I describe one of the fix-
41 up programs that we have in Adequate Housing for Missourians where we rehabilitated
42 their apartments for \$100 per apartment. And many of them just needed some painting,
43 you know, just very little fix-up. And, surprisingly, we also found that some of those
44 apartments had already been rehabilitated several times, and no one was living in them.

1 COMMISSIONER BERTEAU: Big difference between \$10,000 and \$100.

2 MS. BOTWINICK: Right.

3 COMMISSIONER DUBE: But, again, was that with a lot of volunteer
4 labor?

5 MS. BOTWINICK: Yes, it was.

6 COMMISSIONER DUBE: So they are not entirely comparable.

7 MS. BOTWINICK: Right. But there is lots of volunteer labor that can be
8 used. People here are always offering their volunteer services, but it's not always
9 accepted.

10 CHAIRMAN BERTEAU: Can you leave us a copy of your paper there?

11 COMMISSIONER: We have one.

12 CHAIRMAN BERTEAU: You have one already.

13 Thank you very much, Ms. Botwinick.

14 MS. BOTWINICK: Thank you for the opportunity.

15 MR. HANLEY: Thank you.

16 Is Mr. Tom Regan here by any chance?

17 (No response.)

18 MR. HANLEY: Okay. Then our next witness is Mr. Bud Deraps. I hope
19 I'm pronouncing that right.

20 CHAIRMAN BERTEAU: Mr. Deraps, you've been sitting up there
21 patiently for quite some time. So thank you very much for your patience and welcome.

22 MR. DERAPS: It was interesting to hear all the other speakers, too.

23 Thank you for inviting us here to testify today on a very important issue.

24 As a retired private citizen and an ex-union member, I believe the U.S. military strength is
25 so vastly superior to any other force in the world that the defense budget could be cut as
26 much as 75 percent in the next few years, and we could still meet any military threat from
27 any source in the foreseeable future.

28 The United States is finally beginning to pay for some of the excesses of
29 the last five decades. The \$10 trillion spent on defense since World War II in supporting
30 a wartime economy finally bankrupted the Soviet Union, as U.S. strategists knew it
31 eventually would, as the USSR tried to match U.S. military spending on only half of the
32 U.S. gross national product.

33 Little is heard of the effect this drain has had on the health of the U.S.
34 economy and its competitive standing in the world, and there is no doubt who has the
35 number one military strength in the world. This fact is small consolation and does not
36 add to our overall security by still spending \$275 billion a year on defense when the
37 Pentagon is unable to find a formidable enemy.

38 Now it is being publicly admitted that the only purpose of this exorbitant
39 defense budget is to keep defense jobs. The 45 years' waste of natural resources, research
40 and development, equipment, and labor has resulted in the sad condition the U.S. now
41 finds itself in. And now we ask the question, how best can the U.S. adjust to cutbacks in
42 military spending.

43 The only response so far from most defense contractors and workers is to
44 fight for continued sales and contracts while downsizing rather than converting. This is a

1 logical reaction when they realize they cannot compete in the cost-conscious world of
2 commercial production with their military production mentality. And I'll speak a little
3 more on this at the end. I can understand your concern in trying to maintain these high-
4 paying defense jobs that have been given highest priority these past decades, but this is
5 not the only problem we face.

6 Since 1965, 1850 factories and 530,000 manufacturing jobs were created in
7 Mexico, mostly by U.S. corporations. These numbers are forecast to increase to 2800
8 factories and 800,000 jobs by 1995. Add to this the hundreds of thousands of service
9 people who will be returning to civilian life and hoped for jobs. The Free Trade
10 Agreement will make it even easier and more profitable to move production offshore.

11 We hear the Administration's solution is to promote small business
12 formation where the most jobs can be created, this at a time when total business failures
13 for the first half of 1992 were 50,582, up from 43,324 a year earlier. In June, business
14 failures rose 21.1 percent to 8,437, from 6,969 in June of 1991.

15 However, I do have two suggestions. When viewed in total the problems
16 seem overwhelming and unsolvable, but I do have two suggestions. First, declassify
17 thousands of patents that have been kept secret for security reasons that could be safely
18 released and enable our engineers to make new and innovative products. Along this line,
19 there is talk of the Pentagon discontinuing funding for Sematech. This would certainly be
20 a move in the wrong direction.

21 Secondly, according to a June 17 White House press report, the U.S. and
22 the Russian Federation are establishing a U.S.-Russian defense conversion committee to
23 facilitate conversion through expanded trade and investment. This intergovernmental
24 committee will be designed to facilitate information exchanges on conversion activities in
25 both countries.

26 The U.S. plans to provide incentives for U.S. business involvement in
27 commercially viable conversion projects in Russia. This includes placing long-term
28 defense conversion advisers to serve in Russia as catalysts for U.S. business initiatives. If
29 the U.S. can send these conversion experts to Russia, why, to this time, have they not sent
30 them into McDonnell Douglas and all the other major U.S. defense contractors to teach
31 them how to successfully convert?

32 Yesterday, The New York Times printed an article about privatization and
33 conversion in St. Petersburg, Russia, where military plants account for at least half the
34 industrial output of the city. A city council member and deputy chairman of the
35 committee on military-industrial conversion stated, "Military plants, while they employ
36 thousands of people and pay some taxes, are a kind of burden because they don't produce
37 what the city and the people really need." Is this any different from McDonnell Douglas
38 and their many subcontractors in St. Louis, Missouri, U.S.A.?

39 Now, in regard to a question raised earlier this afternoon as to why defense
40 contractors did not attempt to get into commercial production and why they often failed
41 when they did, there are two basic reasons: One, the Center for Defense Information, as
42 late as 1986, stated that average defense earnings were 26 percent versus average of 13
43 percent for commercial producers. This is reason enough not to stray from cost-plus
44 contracts into the commercial world of price and quality competition. Also, it's far easier

1 to deal with one buyer than with multiple buyers.

2 Secondly, military contracts require top quality production with far less
3 concern about cost, and this operating mentality exists from the CEO to the janitors on the
4 shop floors. This attitude may be changing nowadays, now that the contractors are facing
5 far greater bottom line problems.

6 Thank you.

7 CHAIRMAN BERTEAU: Mr. Deraps, thank you. I think your last
8 comment about attitudes changing depending on the view, in fact, I would tie that back to
9 the comment a couple of witnesses ago about the Cold War began to look like it was
10 going to be permanent. Now, clearly, it's not. So there's a clearly a very large adjustment
11 that needs to go underway.

12 The Sematech funding that you mentioned, of course, is intact and in the
13 budget. In fact, it has been proposed to us, and we're trying to see if we can't do it, that
14 we go down and look and see the success that has occurred there, and whether or not
15 that's a model that we could expand on, and whether we should think about
16 recommending expanding on that.

17 Any other questions or comments that anybody has here?

18 COMMISSIONER MAY: I thought Sematech funding, though, was at risk
19 in one of the committee bills, I think, or isn't it?

20 CHAIRMAN BERTEAU: It may be at risk in Congress. It's not a
21 question -- it was in the defense budget proposal for 1993, and there are a lot of people --
22 you know, one of the dilemmas you have is that you draw the budget down, and it has to
23 come down from somewhere, and everybody has their own idea as to what ought to come
24 down first. And there's not always unanimous agreement on what those priorities are.
25 That's why we have a democratic process so we can work that sort of thing out.

26 Do you have a copy of your paper that you could leave with us?

27 MR. DERAPS: I'll tell you, I have changed it so much this afternoon that
28 you wouldn't be able to read it. I'm sorry.

29 MR. HANLEY: We'll have a transcript.

30 CHAIRMAN BERTEAU: We'll have a copy of it in our transcript.

31 MR. DERAPS: Fine.

32 CHAIRMAN BERTEAU: Thank you very much, sir. We really appreciate
33 it.

34 MR. DERAPS: Thank you very much.

35 MR. HANLEY: We have actually four people who have signed up who
36 have not yet testified, but I think it may be that only one is here.

37 Is Mr. Tom Regan here?

38 (No response.)

39 MR. HANLEY: Or Mr. Dan Rankin?

40 (No response.)

41 MR. HANLEY: Is Betty Davis here?

42 (No response.)

43 MR. HANLEY: Is Mr. Phillip Sgroi here?

44 CHAIRMAN BERTEAU: Mr. Sgroi.

1 MR. HANLEY: We're a little ahead of the game, Mr. Sgroi. I hope you'll
2 forgive us. I know we told you 6:45.

3 CHAIRMAN BERTEAU: Mr. Sgroi, you've been in my line of sight all
4 afternoon, so I'm sure you're not sorry to get to go a little bit ahead of schedule.

5 MR. SGROI: No, sir. Thank you.

6 My name is Phillip Sgroi, and my remarks are primarily extemporaneous in
7 nature. What I did was, in a skeletal form, made an outline of some issues that I wanted
8 to speak with you about.

9 A little while ago when I came here and they asked me, how did you
10 become interested in this issue, or what type of employment do you have? I couldn't
11 really think of what label to use. And I said, well, I guess I'm just an old peace activist,
12 and I became interested in the issue in that way. But I would like to share with you,
13 briefly, some personal history that might be relevant.

14 I grew up in a family where my father's cousin was the first Congressional
15 Medal of Honor winner during World War II from the St. Louis area. I had an uncle who
16 fought at Guadalcanal. I had an uncle who helped in the liberation of one of the
17 concentration camps in Nazi Germany. And I had an uncle whose badge number at
18 McDonnell Douglas was 645. When I graduated from high school and went briefly to
19 work for McDonnell Douglas, for a couple months during the summer, my badge number
20 was 112,000. So there was a rather significant difference.

21 But the person that I've left out so far in describing, that was a member of
22 the family, was my father. And my father, like his relatives, very much loved this
23 country. And what he did, as his way of expressing his love for his country, was, he
24 volunteered his services to play taps at military funerals. My father played taps at 8,000
25 funerals in this area, 8,000 times people died.

26 And I can remember going to a funeral when I was a child where the grave,
27 literally, because of the number of men to be buried, was as big as this stage, not the
28 same dimensions, but in size the same as this stage that we're all on right now.

29 But what really made me decide that I wanted to be a peace activist was
30 when I was a little boy and I watched my father play taps at the funerals, and, you know,
31 it's an interesting thing, at that time in our history, people were taught to be stoic in their
32 feelings. Jackie Kennedy wasn't allowed to cry though her husband had been shot down,
33 gunned down sitting next to her, and she wasn't supposed to cry. And there would be the
34 funerals, and what would happen is that the mother would be trying to compose herself,
35 and, of course, men weren't allowed to cry even at the deaths of their sons. And what
36 happened was that, when my dad would start to play taps, the composure melted because
37 you can't listen to that poignant refrain without surrendering to feeling.

38 And the mothers would begin to cry. And I, as a little boy, I thought, you
39 know, when I grow up, I wish there's some way that I could help the world be a place
40 where mothers didn't have to cry and fathers didn't have to cry at the deaths of their
41 children. I have never, unlike some people who share my values, disparaged the value
42 systems or the integrity of those who have been in the military endeavors of our country.
43 I think they were as well-intentioned, if not more so, than I.

44 But what happened was that I began to realize that there were some

1 structural reasons why this country couldn't have certain kinds of policies that might bring
 2 us peace, and one of them was that our economy was mired in defense spending in the
 3 hundreds of billions of dollars. It controlled our economy and hence controlled the
 4 political process. And I began to realize that we couldn't extricate ourselves from this
 5 unless we had some way where people who reasonably were threatened with the loss of
 6 their jobs, if certain policies were implemented, could be protected.

7 So I became interested in economic conversion and began to read the books
 8 of and talk with people like Melman, and Dumas, and even Weidenbaum now at Wash.
 9 U., and began to realize that there needed to be a way of dealing with that issue. I
 10 personally see unemployment; which is what we're really talking about, as a form of
 11 violence. And the reason that I think it's a form of violence is because it can kill hope
 12 and it murders self-esteem.

13 When I was growing up, if you went to high school, you could get a job in
 14 the manufacturing sector. And if you were really lucky, so you thought then, you could
 15 get a job in the defense sector, and you thought that you would be guaranteed a good-
 16 paying job with security, doing something that was very important for the world and this
 17 country.

18 Those people who grew up believing that now are the 35- and 40- and 45-
 19 year-olds who suddenly are being told that the jobs no longer exist; that, if they are to
 20 find employment, it may come after a difficult period of transition; that they're not going
 21 to have the feeling of pride that they once had working in the defense sector; that they're
 22 going to feel inadequate, the men and women; although they were employed yesterday,
 23 they may not be employed tomorrow. The whole self-esteem changes.

24 That's what we're talking about, millions of those people who are afraid
 25 that, if they become sick, that they either won't receive medical care or that it will result
 26 in bankruptcy. What I think we need is a new social contract that changes the way that
 27 we look at this issue of unemployment.

28 You asked the question a little while ago that's frequently asked about
 29 should we have people who are unemployed that are not in the defense sector competing
 30 with people who aren't. My suggestion is that we need to refocus or reframe. And the
 31 reason I say that is that I believe that full employment policies guaranteeing safe,
 32 meaningful employment should be the basic right of every American, just as adequate
 33 housing should be the basic right of every American. One of the reasons we have
 34 homelessness is simply because there isn't affordable housing.

35 But those basic rights haven't been guaranteed. It's almost as if we need a
 36 new charter. But what I'd like to suggest is that part of the problem we have is the way
 37 the process takes place, which is that certain people are usually involved in the decision-
 38 making. They tend to be white, well-educated males, often with academic training beyond
 39 that of most people.

40 I used to do a lot of work in the area of leadership development, and I once
 41 wrote a grant where the basic hidden criteria for selection of the people to be trained was
 42 that they had not been officially recognized by society as a leader, because I thought there
 43 were a lot of leaders out there who had done things like transform PTAs, and save
 44 neighborhoods, and revitalize those areas, that weren't recognized as leaders, and that what

1 we needed to do with these people was to tap into that creative potential that was there.

2 So I guess what I'm saying to you is that, as much as I respect you, I don't
3 want to just see people like us, you know, with the coats and ties on, and things like that,
4 right now. I want to see a lot of people that normally are left out of the process.

5 This country right now is fragmented in a way worse than any enemy could
6 have done to us. A nation at risk, as a teacher -- there was a report on education recently
7 which talked about how, if any enemy of this country had planned an educational system
8 like the one we have now, we would have considered it an act of war. What's happening,
9 what I'm suggesting is that we need to deal with those issues partly by changing the way
10 that we deal with them.

11 Somebody who was on one side of a public issue that I was on the opposite
12 side of recently was talking about why the issue was defeated before the voters. And he
13 said, "You know, the leader of the opposition made the best point, which was, simply,
14 nobody ever came to us and asked for our input." Right now, a lot of people in this
15 country are saying, "Nobody ever came to us and asked for our input." What I'm saying
16 is that the way you maximize participation -- I mean ownership of the problem -- is to
17 increase the participation. I once served as a consultant to a U.S. commission, and it was
18 the National Commission on Proposals for a United States Peace Academy. It was first
19 proposed in the administration of George Washington. The legislation creating the
20 Commission occurred during the Carter years. And the final report of the Commission
21 occurred during the Reagan years, which made me think that the wheels of God grind
22 slowly, but they do grind. And I know that we don't have the time for that kind of
23 process now.

24 And I was talking about the divisions within this country. I think the way
25 that we find common ground is to have a clarity of purpose and a real vision once again.
26 John Kennedy was able to inspire an entire generation, including such creative strategies
27 as the Peace Corps, which made people respond out of their idealism. I believe the
28 American people are as idealistic today as they were in 1963 but that we haven't been
29 spoken to in that way for a long time.

30 I would like to see us, besides involving more people in the process, change
31 some of the definitions. I think national security should include full employment. I think
32 national security should include adequate housing. I think it needs to have a recreated
33 infrastructure in this country. You know, that was the buzzword a couple of years ago.
34 Everybody was talking about "infrastructure."

35 For example, I did not hear the word mentioned once in either of the
36 political conventions so far this year. Not once did we talk about infrastructure. We need
37 vibrant cities. We need to be concerned about the quality of life, not just the quantity.

38 I usually conclude by talking in some way to the ideals of people, and I
39 found something that I think is relevant. It's from John Maynard Keynes' The Economic
40 Consequences of Peace. And he says that "The events of the coming year will be shaped
41 not by the deliberate acts of statesmen but by the hidden currents flowing continually
42 beneath the surface of political history, of which no one can predict the outcome.

43 "In one way only can we influence these hidden currents, by setting in
44 motion those forces of instruction and imagination which change opinion. The assertion

1 of truth, the unveiling of illusions, the dissipation of hate, the enlargement and instruction
2 of men's minds must be the means."

3 So I ask, as my final request to you, that, in your time on this Commission,
4 you consider as your vocation the instruction and imagination of people so that we can
5 remain strong and free. Thank you.

6 (Applause)

7 CHAIRMAN BERTEAU: Mr. Sgroi, for off-the-cuff comments, you have
8 done a remarkably cogent job of laying out what may be the real question of the peace
9 dividend, which is that, in fact, the purposes behind the military expenditures, whatever its
10 political and economic ramifications, have in fact been accomplished and that the
11 enormous amount of creative energy and talent that this nation has employed in that
12 regard over the last number of decades is now available for other purposes.

13 And the national challenge we have of channeling that is neither a quick
14 task nor a particularly easy task. I think it's -- I'm not trying to avoid the issue when I
15 say that some of the questions which you have raised, and which have been touched on by
16 other witnesses here earlier today, perhaps go a bit beyond our charter as a Commission,
17 and perhaps even beyond our capability as human beings and professionals to resolve.

18 MR. SGROI: I understand.

19 CHAIRMAN BERTEAU: But I think it's a very important context in
20 which all of our actions and all of our recommendations and conceptual approaches needs
21 to be maintained. I, too, am a peace activist, and I still feel as a peace activist. And I
22 think that's partly what we're all about here. And I appreciate the focus you've given us
23 this afternoon. Thank you very much.

24 MR. SGROI: Thank you.

25 MR. HANLEY: Mr. Chairman, first of all, I think we have to address the
26 requirements of Dr. Dahlman and Dr. Knetter and Mr. Lavin who have about 30 seconds -
27 -

28 CHAIRMAN BERTEAU: To get in a car and get to the airport.

29 MR. HANLEY: -- to get out the door, or they will miss their flight.

30 CHAIRMAN BERTEAU: Yes. I think we will excuse them at this point
31 and thank them very much for their participation this afternoon.

32 COMMISSIONER DAHLMAN: I want to thank all the participants in the
33 hearing. Thank you very much for your input.

34 MR. HANLEY: The second issue is a little difficult. There are, in fact,
35 two people scheduled to speak at 6:15 and 6:30, respectively, who came and signed up --

36 CHAIRMAN BERTEAU: And then went home or went somewhere else.

37 MR. HANLEY: -- and then went somewhere else. And we told them to
38 be sure to be here at least half an hour before they were due to speak, but that puts us in
39 a position where we really have to --

40 CHAIRMAN BERTEAU: Maybe we have a volunteer from the audience
41 who feels that, even though he or she hasn't signed up, they don't want to pass this
42 opportunity up. And, in fact, we do.

43 MR. HANLEY: Could you identify yourself for us?

44 MR. MACHOVEC: Sure. Into a mike?

1 MR. HANLEY: Yes, please.

2 MR. MACHOVEC: My name is Kent Machovec. I currently work for
3 McDonnell Douglas in the R&D area. I've been in the aerospace defense business for
4 about eight years or so.

5 CHAIRMAN BERTEAU: Kent, would you spell your last name for me?

6 MR. MACHOVEC: M-a-c-h-o-v-e-c.

7 CHAIRMAN BERTEAU: Thank you.

8 MR. MACHOVEC: And before being at McDonnell, I was at Martin
9 Marietta out in Denver, and then I had been at Lockheed Missiles and Space down in
10 Austin for a few years. So I've seen quite a range of the aerospace and defense industry.
11 In addition to participating in various elements of it in Austin, LMSC did a lot of
12 command and control type systems. They had the Aquila RPV before they got
13 reorganized.

14 I also had occasion to visit the Sunnyvale facility where they have the Blue
15 Cube satellite control facility and that whole culture there, as well as Martin's -- Martin
16 did a lot of -- we worked on some DIA proposals for some interesting systems.
17 Obviously, Martin has a lot of NASA type work that they do, Titan type work, as well as
18 manned space systems; did the MMUs and some of that kind of stuff.

19 I'm at McDonnell Douglas now. McDonnell Douglas has a very rich
20 history, as well, going back to their start in 1939 with kind of the secondary type contracts
21 that they worked on back in World War II when things were cranking up for that. And
22 then Mr. Mac very wisely saw a lot of things and was able to do very well with the
23 Voodoo and some of the other planes. And then the Phantom II, that was a very
24 successful plane.

25 I guess my point of view is -- so I've been around, at least on the
26 contractors' side, and I've done a lot of reading from the historical point of view. I just
27 have an interest in the history of science and then, specifically, some of the cases where
28 the military-industrial complex has very usefully and very well done technology
29 development. There's a book on John von Neumann's work, involvement with the
30 electronic computer project back in the 1930s and 1940s, his interest in looking at using
31 computers for simulating air wind tunnels, which was the precursor to CFD, et cetera, et
32 cetera.

33 So I think right now, you know, I think we're at probably one of the most
34 important points in our history, perhaps, at least certainly one of the most important points
35 since perhaps 1917 and the early 1900s, because there are a lot structures that are in place
36 that have been in place or put in place since then that we're totally reexamining. And I
37 think we have to be extremely careful not to -- we have to -- you know, your work, the
38 committee's work -- I'm not sure if you realize how important it is. I think some of you
39 do.

40 We have to be very careful to realize what our system has given us and the
41 useful characteristics of our system.

42 CHAIRMAN BERTEAU: Could you tell us what some of those useful
43 characteristics are?

44 MR. MACHOVEC: Well, you know, the R&D side of it, using national

1 resources for defense R&D, as well as the spinoffs that occur from defense, as well as
2 space R&D. Those are real. The systems, the mechanisms, you know, the bureaucracies
3 that we put in place that have given us very good technology, Wright Field, NASA,
4 Langley, you know, all these kinds of things, DARPA, you know, et cetera, et cetera.

5 I think that we have to be careful not to, you know, disturb those things.
6 But we also need to -- things have changed. The Cold War is over. We have to look at
7 what things can be changed and do it in the right way and not throw a bunch of people
8 out of work and into the street because of a depression or recession.

9 CHAIRMAN BERTEAU: I wonder if I might leap in and ask a couple of
10 questions and take advantage of your background. It has been suggested to us a number
11 of times that two things are at work here that are sort of untapped resources -- or maybe a
12 better term is "inadequately" -- resources that we have taken inadequate advantage of.

13 One of those resources is the technology that has been developed within
14 defense that is not being well utilized for commercial applications. The second is ideas
15 that defense engineers have that are being inadequately developed, in part because there is
16 no easy avenue for them to be taken advantage of. Maybe they're not a big enough idea
17 for the company they work for to be interested in; maybe they're not, as the McDonnell
18 Douglas representative earlier today said, one vector off from the tangent that they're
19 already on, and so it's too divergent from their things.

20 Would you comment on the validity of both of those? Is there technology
21 that has been developed that we're failing to take advantage of, and, if so, what should we
22 do to do that? Are there ideas that are out there in the engineering and design work force
23 that have commercial application that we don't have a structure in place to take advantage
24 of, and, if so, what should we do about that?

25 MR. MACHOVEC: I have not historically been involved in the black
26 world, you know, for war, so I can't speak for any of those kinds of things.

27 CHAIRMAN BERTEAU: Right.

28 MR. MACHOVEC: There are undoubtedly a lot of things in that realm,
29 probably, although things like low observable type technology, probably not much there, I
30 don't think.

31 But I think there are a lot of -- there are two things: There are probably
32 specific technologies that have been developed and have been focused on from a defense
33 application standpoint, and this gets into the whole -- we need to also think about the 6-1,
34 6-2, 6-3 type issues with respect to how much money goes into 6-1 type research, basic
35 research, versus 6-2, advanced development, versus 6-3 money.

36 You know, 6-1 is basic research. That tends to be generic, although you
37 may do basic research on, you know, again, some kind of low observable type thing. But,
38 obviously, 6-1 tends to be more generic and more redirectable. And then, as you get to 6-
39 2, 6-3, I think it becomes more specific in terms of applications.

40 I'm not really sure right now if you want to look at respreading money as
41 far as those categories. I'm not sure -- I haven't thought of it in depth whether we should
42 respread those kinds of resources. I think there is a lot of value to doing -- well, you
43 know, you need some production, because that's the industrial base, and that's making the
44 profits, et cetera, for the companies. Okay.

1 But you also need to look at technology demonstrators like the F-15 STOL-
2 maneuver technology demonstrator which was done a few years ago, which looked at
3 vectoring thrust nozzles, and you see that in the F-22 design now.

4 COMMISSIONER DUBE: But I think Dave was asking you for a slightly
5 different thing rather than how we should direct our money and so forth in the future.

6 MR. MACHOVEC: Okay.

7 COMMISSIONER DUBE: The question is, as a result of the money and
8 effort that has taken place over the last several years, is there technology locked up, in a
9 way, that has been developed but not being exploited because the system doesn't make it
10 known to who it needs to be known to?

11 CHAIRMAN BERTEAU: And we're not talking classified projects, just
12 standard available -- things that are in the white world.

13 MR. MACHOVEC: Right.

14 CHAIRMAN BERTEAU: Is it your experience --

15 MR. MACHOVEC: I think -- yeah, I think there is.

16 CHAIRMAN BERTEAU: I'm not asking you to speculate beyond your
17 own experience.

18 MR. MACHOVEC: Right. Yes. No, I think there is. I think there is. I
19 don't have a good canonical example right now. Generally, I mean -- there are a couple
20 other specific points that I want to get to that might kind of --

21 CHAIRMAN BERTEAU: Okay. I don't mean to divert you from those.

22 MR. MACHOVEC: That's fine. That's fine. I think this will reflect on
23 your question.

24 CHAIRMAN BERTEAU: Okay.

25 MR. MACHOVEC: There are some things that I think
26 -- well, there's one larger question, which is that -- you can call it burden-sharing, or
27 whatever you want to call it
28 -- but, obviously, you know, we have expended a lot of resources, natural resources, and
29 that's part of our current national debt, I think, is resources on defense and that sort of
30 thing.

31 And we have, you know, largely protected Eastern Europe and, you know,
32 the domino theory, and et cetera, et cetera, all over the world. And that's fine. That was
33 valid. I think that was totally correct. I think MAD was the only available thing that we
34 could have pursued. I think it was the only sane -- if you can think of that as being sane
35 -- the only sane thing to be done.

36 I think that we should have a lot of pride in the behind-the-scenes people,
37 throughout history, working for Truman, et cetera, because I think those were very
38 needed. I'm personally not a peace person. I'm for peace, but peace from a strength point
39 of view. I think it's naive to think of things as, well, the Cold War is over, and we're all
40 happy now. I think that's totally an incorrect viewpoint of how human nature works. I
41 think the arsenal of democracy is a good point of view.

42 I think that we've been spending a lot of money on, you know, defense of
43 Europe, et cetera, and that has been putting us into a hole from a debt point of view. And
44 I think -- I'm not sure that this is workable -- but I think some of the other countries

1 should look at what has happened. And I'm not asking for handouts, but I think they need
2 to realize what they have been getting from us.

3 And certainly we've derived a lot of benefit. The previous speaker was up
4 here and -- actually the last two speakers -- were lamenting all the resources spent on
5 defense and all that. And that's fine for their -- that's their point of view. I believe that it
6 was necessary and required for what historically has transpired. But I think we have also
7 obtained economic benefit from spending on defense, economic and innovation.

8 The defense industry -- and this is the issue with respect to be careful, if
9 you don't understand how it works, and you try and change it and totally screw things up
10 -- because I think the defense industry is an innovation engine for not only us but the
11 world. I'm not sure that it's as efficient as it could be, but there's no question in my mind
12 that it is.

13 So I think there are some specific projects that you can look at. Again, this
14 gets back to a sort of Republicans versus Democratic point of view, or really, I guess, a
15 laissez-faire versus a more direct hand of government point of view, or debate, which is
16 an ongoing Republican/Democratic debate.

17 I think there are a lot of things that we can do as a country, if we just -- if
18 the government -- not talking about handouts -- but if the government gets organized and
19 has some really good ideas about how we can spend some of this money and redirect it, I
20 think we're going to be probably as good or better than we ever have been.

21 And I haven't always felt that way. About a couple years ago I was not
22 feeling that way at all. But I think there's some new thinking in the country now. And I
23 think we still have the best system in the world.

24 CHAIRMAN BERTEAU: Do you have any additional recommendations
25 you would leave with us? We're about to run out of time.

26 MR. MACHOVEC: Okay. Sure. Sure. I'm sorry. I think there are some
27 things that we need to do from a national point of view, perhaps as an airbus kind of
28 model, consortium technology development type thing. NASA has been looking at high-
29 speed civil transport on kind of a back-burner type mode. I think they're looking at
30 cranking that up a little bit. I think that should be a national project. We ought to pursue
31 that actively.

32 Let me interject and say that my comments -- I'm here as a citizen, not as a
33 --

34 CHAIRMAN BERTEAU: Understand.

35 MR. MACHOVEC: The space issue, I'm not quite sure what to do there.
36 It seems like -- I'm not sure what the space station is going to give us aside from a
37 continued manned space program, which is maybe valid. I think we need to do some
38 serious rethinking on that. I'd like to invite you to look at the movie "The Right Stuff."
39 There's another movie, also, called "Conquest." That's a pretty interesting history of our
40 participation in the whole space race, and it's very interesting.

41 I think that the concept of a full employment policy, which was advocated
42 by the previous speaker, is a ridiculous concept, because that's not fundamentally how our
43 system is organized. What he's talking about is a socialistic-communist type method --
44 system -- which has proven itself to be invalid. But we have to balance that extreme with

1 what we have now, which is, do we just throw all these people out of work? Okay.
2 That's certainly not a good way to proceed either.

3 There are a couple other points I need to get to.

4 CHAIRMAN BERTEAU: All right. If you would wrap them up quickly,
5 because we're bumping up against the limit here.

6 MR. MACHOVEC: I think we need to really rethink the NIST DARPA
7 issue with respect to a national civilian technology agency. I personally think that it
8 would be wise to maintain both DARPA -- and have DARPA look at dual use. It's not
9 clear to me at all that they're seriously looking at that. I think they need to look at dual
10 use. And I think it would be a good idea to fund NIST and ramp NIST up further in their
11 ATP program.

12 I think the SBIR program is another component of this whole thing. Are
13 you familiar with that?

14 CHAIRMAN BERTEAU: Yes.

15 MR. MACHOVEC: Okay. That's an excellent program. That should be
16 increased, as well, because that's -- you know, you talk about all these companies and
17 these big companies laying off people, and everybody -- and certainly it's so true that, you
18 know, most of employment is from small companies, and big companies were small
19 companies at one point. Okay. IBM started from NCR. Apple started from HP. So
20 SBIR is an excellent method or system for that.

21 The other thing is, with respect to a national R&D policy, I'm aware of a
22 Japanese initiative to give us several billion dollars to -- like the NSF, I think, is what
23 they initially proposed a couple years ago. And we were very shocked and weren't sure
24 how to react to that proposal. They realize that we have innovation. And I'm not sure
25 how to -- what the right -- I haven't thought this through -- but what the right answer is
26 there.

27 But one thought to throw out, which hasn't been fully examined, is to
28 maybe have a type of classification for national R&D that has been done on our national
29 funds and have it be similar to export controlled data with respect to -- obviously, it's not
30 national security type data, but it would be potential national economically important data,
31 or R&D.

32 So, now, you have to balance that point of view with the idea that, you
33 know, ideas need to be free-flowing, and that's how innovation happens, et cetera, et
34 cetera. That's true too. So maybe you need something that's export controlled, some
35 quantity of the R&D that gets spent to be export controlled type thing, as well as totally
36 free. And maybe let the Japanese pay for the totally free stuff.

37 CHAIRMAN BERTEAU: All right.

38 MR. MACHOVEC: I think I'm pretty much done.

39 CHAIRMAN BERTEAU: I think you've pointed out for us a number of
40 the areas where the trade-offs need to be made, and sometimes those trade-offs are
41 difficult to quantify. And it becomes a public policy issue that you can't just add up the
42 numbers and come out with the right answer.

43 Charlie or Paul, any questions?

44 COMMISSIONER DUBE: No.

1 COMMISSIONER MAY: No.
2 CHAIRMAN BERTEAU: All right. Thank you, Kent. I appreciate it.
3 MR. MACHOVEC: Thanks.
4 CHAIRMAN BERTEAU: Mr. Hanley, if --
5 MR. HANLEY: Well, now, let me see if we have any late arrivals here.
6 Mr. Tom Regan or --
7 A PARTICIPANT: (Inaudible).
8 MR. HANLEY: Yes, that would be great, if you could fill one of those
9 out.
10 CHAIRMAN BERTEAU: Well, we can just say, has anybody out there
11 signed up and is ready to testify? Otherwise, I think we're getting close to our --
12 MR. HANLEY: Or is there -- Shelby, do we have anybody sort of --
13 A PARTICIPANT: (Inaudible).
14 MS. BECKER: I think both of us just wanted to fill in a little bit
15 (inaudible). We didn't sign up.
16 MR. HANLEY: Well, that's all right.
17 MS. BECKER: (Inaudible).
18 A PARTICIPANT: (Inaudible).
19 MR. HANLEY: Great. Thank you.
20 MS. BECKER: (Inaudible). It's a New York Times article from May.
21 MR. HANLEY: Thanks. I think we have it in there.
22 MS. BECKER: Oh.
23 MR. HANLEY: Would you like it back?
24 MS. BECKER: I would (inaudible).
25 MR. HANLEY: Let me see if we can fish it out here.
26 MS. BECKER: (Inaudible) at least part of it.
27 My name is Janet Becker.
28 CHAIRMAN BERTEAU: Is that B-e-c-k-e-r?
29 MS. BECKER: -- c-k-e-r. Right.
30 I also presented some information about a national organization that is new,
31 a grass roots organization called Campaign for New Priorities. And you seem to be
32 familiar with it. There is a local --
33 MR. HANLEY: Well, we did have a person earlier today.
34 MS. BECKER: Good. Okay.
35 MR. HANLEY: Mr. Jennings Woolridge --
36 MS. BECKER: Oh, right. Yes. Right. Communications --
37 MR. HANLEY: -- who spoke as our second witness earlier today, from the
38 Campaign, and described a number of its things.
39 MS. BECKER: Right. That's fine. Well, I've been involved in that. And
40 a recent activity, which he doesn't know about yet --
41 MR. HANLEY: Then he probably didn't tell us about it.
42 MS. BECKER: No, he didn't. We are asking cities to endorse the idea of
43 saving defense spending and putting it into investing in local programs, domestic
44 programs. So the first city to be approached with this request in this area is University

1 City. And we had a very successful presentation with that on Monday evening. It was
2 written up in this morning's paper, which I also gave you. The council was very
3 receptive, and one of the council members made a comment that was just beautiful, and I
4 included that with it.

5 The importance to cities of revitalizing the economy, and the infrastructure,
6 and the education, and all the things we've been talking about, it will catch on here and I
7 think all across the country. So I've been part of that, but I gave you that.

8 I had a question with defense spending. That's all we ever talk about and
9 hear about. But it seems to me that a lot of the Energy Department funds go toward
10 defense. Nobody is talking about reducing Energy Department funds. And then, if I'm
11 correct, this is what I've heard, there is a whole other area that is called "off budget,"
12 because it's totally secret, and very classified, and very expensive. There's a lot of money
13 out there. Maybe you know a lot more than I do. It wouldn't surprise me at all.

14 But this is the kind of thing that I have read over the years. It isn't just the
15 Pentagon that is spending all this money on our defense or --

16 CHAIRMAN BERTEAU: If I could comment, Ms. Becker. While the
17 witnesses this afternoon have focused on the Department of Defense budget, our charter,
18 in fact, requires us to look at all federal programs and all agencies and the monies
19 associated with those.

20 MS. BECKER: Good.

21 CHAIRMAN BERTEAU: And that is in fact what we're doing.

22 MS. BECKER: I'm glad to hear that.

23 CHAIRMAN BERTEAU: So the testimony we've had here today is not
24 totally comprehensive in terms of the programs we're looking at, and the Energy
25 Department is one that we're taking a very hard look at.

26 MS. BECKER: Good.

27 CHAIRMAN BERTEAU: However, I think it's important to point out that
28 it is not our task to decide exactly what the right level of spending ought to be.

29 MS. BECKER: Oh, I understand that. Sure.

30 CHAIRMAN BERTEAU: In fact, the nation has a process for doing that
31 already.

32 MS. BECKER: Oh, yes.

33 CHAIRMAN BERTEAU: The executive branch proposes, and Congress
34 debates it, and ultimately something comes out the back end.

35 MS. BECKER: That's (inaudible).

36 CHAIRMAN BERTEAU: But actually I shouldn't -- that's a poor analogy
37 to use. It has anatomical implications which are not what I intended.

38 But our approach is more, given whatever that level that the national
39 democratic process ends up with, what do we need to do to alleviate the impacts of that
40 around the country? So I don't mean to dismiss it, but I think it's important for you to
41 understand that there are some limits on our charter, in terms of what we're looking at
42 there.

43 MS. BECKER: Oh, I know that.

44 COMMISSIONER DUBE: But, having said that, just as a matter of

1 accuracy, that portion of the Department of Energy budget that is associated with national
 2 defense is counted in the numbers that are identified as national defense. Now, not all of
 3 the Department of Energy, but that part which is associated with weapons is in defense
 4 numbers as they are seen. And those numbers are in fact going down. One of the
 5 problems related to the Department of Energy, including the national defense piece of it,
 6 is that, even though you have substantial reductions with respect to weapons production,
 7 there are massive amounts of money going into environmental clean-up that is masking
 8 that. So it is not going down at the rate you would expect based on the reduction in the
 9 number of weapons, but that's because of the environmental clean-up.

10 MS. BECKER: Well, I think that's a good use for it.

11 CHAIRMAN BERTEAU: In fact, in 1993, there is now about five and
 12 one-half billion dollars in the Energy Department budget alone for clean-up of the Energy
 13 Department sites that have nuclear contamination. There are about 17 or 18 of them.

14 MS. BECKER: That's fine.

15 CHAIRMAN BERTEAU: We're not challenging that expenditure.

16 MS. BECKER: No. Okay.

17 Well, the other thing that I brought that I thought maybe you have here is,
 18 it's a newspaper column in The New York Times in May that recommends -- it was by an
 19 academic person, an economist, I think -- recommends the creation of a Department of the
 20 Peace Dividend, which would be sunsetted in the year 2000 -- it was this year's paper, so,
 21 I mean, we're talking about maybe five, six years, eight years, whatever -- to focus just
 22 exactly on what we are all grappling with today, and have input from all segments of the
 23 population, and do it in a very systematic and thoughtful and careful way, with all the
 24 factors involved, and have a lot of monitoring and reporting back and is this doing what
 25 we want to do.

26 And I think, also, the goal that Mr. Sgroi expressed, we need a vision; we
 27 need to decide what we want to see in the next century and millennium. And this has got
 28 to be done first, before we say, well, it ought to go here instead of there. There's a lot of
 29 support for reducing the budget -- the deficit, rather. And I understand that, but that
 30 doesn't create a single job.

31 And I think, if we do invest, which is what I'm hoping will happen, any
 32 savings that we derive, redirect them into investment, we can rebuild our economy. And,
 33 little by little, that deficit will go down as the people are paying taxes instead of being
 34 supported by them, and gradually it will go down.

35 And I just want to say that I'm very pleasantly surprised by this
 36 Commission. You are very refreshing compared to other commissions that I've heard who
 37 sort of listen casually, but their minds seem to be elsewhere, and they are glad to have
 38 you get finished and over with and out the door, and they've done their job. And I feel
 39 that you are very serious and very interested. You pay attention. You ask good
 40 questions. You care. And I really thank you for the attitude that I have seen, which was
 41 a very happy surprise to me, so I congratulate you, I admire what you are doing. I wish
 42 you luck.

43 CHAIRMAN BERTEAU: Thank you very much, Ms. Becker.

44 COMMISSIONER MAY: I might offer, Mr. Chairman, in a sense, there

1 really is a government agency that is charged with that responsibility, and it's the Arms
2 Control and Disarmament Agency. I was kind of surprised to be reminded of that, but the
3 Chairman and I visited with the current director, and he reminded us that that's in his
4 original charter is to plan for industrial conversion as a result of arms control agreements
5 and ultimate disarmament.

6 So that organization really exists today, but, as so often happens, sometimes
7 the organization focuses on other aspects of the charter.

8 MS. BECKER: Yes, this is true.

9 CHAIRMAN BERTEAU: Thank you very much, Ms. Becker. And we'll
10 certainly look at that -- our economists have all departed, but we'll look at the article
11 anyway.

12 MR. HANLEY: I have it here.

13 CHAIRMAN BERTEAU: Mr. Hanley, I think we're bumping up against
14 the time that we have allotted.

15 MR. HANLEY: Well, we certainly are.

16 CHAIRMAN BERTEAU: We had one other person who wanted to take
17 advantage of the opportunity, and I'm delighted to give you that chance, if you still so
18 desire.

19 A PARTICIPANT: Ms. Becker really (inaudible) pretty much what I was
20 going to say. (Inaudible) even though there weren't that many people here today, this
21 second largest principality in St. Louis county didn't vote in favor of (inaudible).
22 (Inaudible) the military (inaudible). The largest principality (inaudible) is supposed to be
23 passing that also. So it is out there in the cities. People have these serious concerns.
24 They're not just (inaudible).

25 CHAIRMAN BERTEAU: We will note that and watch that carefully over
26 the next few months.

27 COMMISSIONER MAY: Does that gentleman want to talk back there?

28 MR. HANLEY: We have a gentleman up here who would like to --

29 A PARTICIPANT: I just (inaudible) to comment that I didn't have time to
30 talk about a totally different subject (inaudible).

31 CHAIRMAN BERTEAU: Well, I'm hesitant to sort of reopen the idea that
32 we can start over at the top of the list and work our way down again. Notwithstanding
33 Ms. Becker's delightful comment, it has been a long two days for us, and, if you have
34 already given it to us in the written package, I think we would elect to just read that, and
35 thank you very much for that.

36 Those of you who stuck it out all afternoon, for whatever reasons you did, I
37 thank you for doing that. And, obviously, to all those who took the time to appear before
38 us today, we offer our thanks and appreciation as well. This is not an easy set of
39 subjects. If it were that easy, we wouldn't have ever been created as a commission in the
40 first place, because someone would have already figured it out and would be doing it.

41 The reason we came here I think has been, in large part, accomplished. We
42 have heard from a wide variety of people, and we deeply appreciate all the effort and
43 input they have. We do take this job very seriously, and we think that what we're doing
44 is very important to the future of America and the future of the world.

1 We thank you all for your time and attention.

2 (Applause)

3 MS. DAVIS: My name is Betty Davis. My address is 5869 Elmbank. I
4 am testing the waters as a write-in candidate for the House of Congress, 1st District.

5 I would like to offer some encouragement and information to you. I came
6 to listen to you to get data in order to help initiate avenues to aid in returning to the
7 workplace. The time during the transition could be an opportunity to pursue hobbies, a
8 second career, spending time with the family, going into business for oneself, fashion,
9 carpentry, specializing in design, and real estate.

10 I suggest retraining, brushing up on English, reading, and math; along with
11 that, updating yourself on current trends in employment.

12 Remember your self-worth. Sometimes when faced with family needs and
13 unemployment, you may feel like zero. You are still worth whatever you were making an
14 hour. Try to find the humor in life. And, last but not least, don't be afraid to seek
15 counseling. The words "psychiatrist" and "psychology" can be intimidating. If you have
16 difficulty with them, use the word "analyst."

17 To a happy future. Thank you.

18 Conversion of defense facilities. What is the most immediate use that
19 would require minimal disruptions? Using the most essential employees, ones that show
20 and/or have versatile skills, employees to assist in reorganizing the structure of a facility;
21 i.e., construction, managers, quality control employees.

22 Availability of employees locally and nearby; i.e., St. Louis, Illinois, and et
23 cetera, and their access to the facility by highways, bus transportation, and/or car pooling.

24 Some suggestions: Training and retraining facility, most urgent. This is a
25 substitution of the purpose of the defense facility. I find training and retraining the most
26 urgent. In this training, you would concentrate on the basics: math, English, and reading.
27 The result of this facility is to produce specially trained teachers who can get the quickest
28 effect.

29 Employee fitness on the job, which would eliminate excessive absenteeism,
30 reduce errors, encourage an agreeable attitude, one of common purpose.

31 Also important is child care facilities. I feel that it is a necessary need to
32 have the child care facilities on site, on work site.

33 Thank you.

34
35 (The hearing was concluded.)

36 * * * * *

ST. LOUIS PUBLIC HEARING

FINAL ATTENDANCE, AUGUST 20, 1992

<u>Time</u>	<u>Name</u>	<u>Representation</u>
1:00 PM	David Berteau, Chairman	DCC Opening Remarks
1:12 pm	Mr. Denny Coleman	Chairman, St. Louis Economic Adjustment and Diversification Committees
1:16 pm	Jennings Woolridge	Reg. Dir., Communications Workers of America
1:24 pm	Mr. Jim Caldwell	McDonnell Douglas Corporation
1:41 pm	Mr. Glenn Lawrence	Office of Governor of Indiana
1:55 pm	Mr. Tom Stark	Visionaire Corporation
	BREAK	
2:30 pm	Mr. Cassel Williams	President, District 837 IAMAW
2:39 pm	Ms. Rose Kemp & Ms. Ruth Margolin	Regional Administrator, Women's Bureau Director, Women's Center
3:00 pm	Mr. Elmer Dapron	Private Citizen
3:15 pm	Mr. Gerald Ide	Private Citizen
3:24 pm	Sister Susan Jordan	Private Citizen
3:35 pm	Dr. Fredric Raines	Private Citizen
4:56 pm	Mr. Jim Gilbert	Private Citizen
4:12 pm	Ms. Marjorie Reinhart	Private Citizen
4:32 pm	Ms. Margaret Gilleo	St. Louis Economic Conversion Project
	BREAK	

4:45 pm	Mrs. Joan Botwinick	Adequate Housing for Missourians
4:57 pm	Mr. Bud Deraps	Private Citizen
5:09 pm	Mr. Phillip Sgroi	Private Citizen
5:24 pm	Mr. Kent Machovec	Private Citizen (McDonnell Douglas)
5:43 pm	Ms. Janet Becker	Adequate Housing for Missourians
6:30 pm	Ms. Betty Davis	Private Citizen

SAINT LOUIS PUBLIC HEARING

APPENDIX OF WRITTEN MATERIAL

<u>Name</u>	<u>Written Material Presented</u>
Denny Coleman Appendix A	✧ St. Louis Economic Adjustment & Diversification Program
Jennings Woolridge Appendix B	✧ Statement
James Caldwell Appendix C	✧ Testimony Before the Defense Conversion Commission
Glenn Lawrence Appendix D	✧ Governor's Indiana Military Base Use Coordinating Commission Presentation to the Defense Conversion Commission
Thomas Stark Appendix E	✧ Testimony ✧ Visionaire Corporation Memorandum "The Dept. of Defense is buying foreign aircraft costing U.S. jobs" ✧ Visionaire Brochure "JPATS JOBS: U.S. OR FOREIGN?"
Cassel Williams	No written material provided
Rose Kemp Appendix F	✧ Oral Testimony of Rose Kemp ✧ Remarks Region VII Office of the Secretary Women's Bureau US Department of Labor ✧ Testimony by Theresa Marie Suhling ✧ Testimony of Female Veteran Who desires to remain anonymous
Ruth Margolin Appendix G	✧ Testimony of Ruth Margolin
Elmer Dapron	No written material provided
Gerald Ide Appendix H	✧ Biographical Sketch ✧ Outline of Testimony

Sister Susan Jordan Appendix I	✧ Statement
Frederic Raines Appendix J	✧ Remarks and Supporting Tables ✧ Paper presented to Western Economic Association International Conference July 12 1992
Jim Gilbert	No written material provided
Marjorie Rheinhardt Appendix K	✧ Statement
Margaret Gilleo Appendix L	✧ Outline of Testimony ✧ Brief Biography
Joan Botwinick Appendix M	✧ Testimony
Bud Deraps	No written material provided
Phillip Sgroi	No written material provided
Kent Mahovec	No written material provided
Janet Becker Appendix N	✧ To Whom It May Concern ✧ A resolution For New Federal Priorities ✧ Schneider, Michael, "Dividend of Peace Sought," <u>St. Louis Post Dispatch</u> , 20 August 1992. ✧ Markusen, Ann, "Department of the Peace Dividend," <u>New York Times</u> , 18 May 1992
Betty Davis	No written material provided
Rita Voorheis Appendix O	✧ Testimony

Appendix A

One Twenty-one South Meramec Suite 412 Saint Louis, Missouri 63105 (314) 889-7663

FAX (314) 889-7666

Industrial
Development
Authority

Local Development
Company

Port Authority

Land Clearance
for Redevelopment
Authority

Tax Increment Financing
Commission



ST. LOUIS ECONOMIC ADJUSTMENT & DIVERSIFICATION PROGRAM

The St. Louis Economic Adjustment and Diversification Program (EADP) was established in the summer of 1990 to address the short and long-term impact of defense cuts on the St. Louis regional economy. The St. Louis EADP is managed by a committee of regional representatives from government, labor, business, civic and educational institutions. The EADP has concentrated on assisting workers laid-off at McDonnell Douglas and other defense dependent companies as well as analyzing the long-term impact of defense cuts and developing strategies and action plans to diversify and strengthen the regional economy. The highlights of this two year effort are outlined below.

WORKER ADJUSTMENT STRATEGIES

- State of Missouri received \$3.2 million in supplemental funding from the Department of Labor to assist displaced McDonnell Douglas employees through the St. Louis Worker Re-Entry Program.
- McDonnell Douglas contributed \$2 million to assist with space, equipment and other programmatic needs.
- St. Louis County Economic Council received \$123,000 from the State of Missouri to sponsor entrepreneurship courses for laid-off McDonnell Douglas employees. Over 500 have participated in the classes.
- McDonnell Douglas donated its lease-hold interest in a 15,000 square foot building to expand the St. Louis County Incubator Program. The incubator currently houses 28 businesses.
- The EADP surveyed laid-off McDonnell Douglas employees to determine the effects of the layoffs on the region and the needs of the displaced employees.
- The State of Illinois initiated a program called Fresh Start to assist displaced defense workers in the St. Louis region with obtaining low interest loans while looking for employment.
- The EADP sponsored meetings with Job Training offices throughout the region to better coordinate job training, placement, and reemployment efforts.
- The St. Louis Community Colleges and the Small Business Administration conducted various job fairs throughout the region for laid-off defense workers.

DEFENSE INDUSTRY ADJUSTMENT STRATEGIES

- A \$100,000 grant was received from the Department of Defense - Office of Economic Adjustment to assist the region with adjustment activities and develop a diversification strategy. Two primary projects were conducted through this grant:
 - A survey of over 750 prime defense contractors in the region to determine defense dependency and need for adjustment assistance
 - A seminar focusing on successful diversification strategies used by other defense dependent companies throughout the nation to alert St. Louis companies of potential successful models
- A \$150,000 grant was received from the Economic Development Administration to conduct research and identify key strategies to assist in the diversification and growth of the St. Louis economy. Through this grant, several studies were conducted including:
 - Survey of displaced McDonnell Douglas employees
 - Development of economic and occupational forecasts
 - Analysis of regional international programs and organizations
 - Analysis of regional financing programs
- The St. Louis World Trade Center franchise was acquired for the region and began operations with the support of local funding. The WTC will work with companies interested in exporting by providing a variety of trade services. Special emphasis will be placed on defense firms wanting to diversify.
- An advanced machining technology center is being developed to assist manufacturers with retooling and training of employees in new manufacturing technologies.
- A Bio-Medical Technology Consortium has been formed to seek ways of expanding jobs locally in this growing field. One of the strategies is to develop a Bio-Medical Technology Incubator. The incubator will facilitate the transfer of research from the region's two outstanding medical schools as well as assist individuals and small businesses affected by defense industry adjustments who want to start a new business in this or other fields of high technology.
- A consortium of St. Louis manufacturers and universities has been formed to research the potential usage of composite materials in commercial applications of road and bridge work. A \$4.5 million grant from DARPA has been awarded to aid in this research.
- The State of Missouri passed tax credit legislation which will assist economic adjustment programs in St. Louis.

- The Department of Defense - Office of Economic Adjustment has provided a \$66,000 grant for the continuation of the EADP. The grant will fund a survey of defense subcontractors and suppliers as well as provide outreach to local businesses and workers on local adjustment assistance. Work on this grant will begin in September, 1992.

PENDING APPLICATIONS/PROJECTS

- The EADP submitted a pre-application to the Economic Development Administration for \$6.7 million in funding for development of an advanced machine tooling center and the World Trade Center, and for establishment of a regional Revolving Loan Fund which will provide funding for local defense companies working to diversify as well as start-up businesses.
- An application for funding of a Management Assistance and Technology Transfer Program was submitted to the Department of Labor for funding as a Demonstration Grant.
- An application for the development of a St. Louis Procurement Assistance Center was submitted to the Department of Defense - Defense Logistics Agency for funding. The center will assist local companies in obtaining government contracts.
- A proposal for a follow-up survey of displaced McDonnell Douglas employees has been submitted to the State. The survey will evaluate employment changes and trends which have taken place within this past year.

Through this regional effort, many organizations in St. Louis have worked to establish an array of programs to assist displaced workers and defense dependent companies. The region's diversification plan and strategies, first printed in November of 1991, will be revised and updated in the fall of 1992.

For further information:

- * Job Search and Training Assistance
St. Louis Worker Re-Entry Program
Telephone number - 644-9787
- * Small Business Incubator Space
St. Louis County Enterprise Center
Telephone number - 994-0577
- * Defense Adjustment Programs
St. Louis County Economic Council
Telephone number - 889-7663

STATEMENT: JENNINGS D. WOOLDRIDGE
NORTHERN AREA DIRECTOR
CWA DISTRICT 6, ST. LOUIS, MISSOURI
PARTICIPANT IN JOBS WITH JUSTICE
CAMPAIGN FOR NEW PRIORITIES

The organizations of Labor, Citizens, Community and Religion have come together in a coalition for the common purpose of promoting the disbursement of the "Federal Peace Dividend." Our primary interest is to convince Congress, the Defense Department and the President to utilize their combined power and influence to convert a large portion of the enormous military/defense budget to domestic civil use.

Our Committee realizes that we cannot and should not expect our Government to delete all military and defense spending from the National Budget. There is, however, ample justification for a drastic change in which those dollars could be converted to better use on domestic needs.

Since the end of the Cold War, we, the United States are no longer on the brink of war with other major powers around the globe. We need not maintain a strong military presence in Europe and the Far East or provide a National Security Force for the entire world.

There are many, many crucial needs here in the United States that need to be met. Jobs for the unemployed and the young people coming into the labor market could be provided through converting a large portion of the military/defense spending to the use of the private sector industry to retool defense industry plants to civil industry use. i.e. Calstart in California building electric powered cars for domestic consumer use, the "Sword to Plow Shares" grant of \$4.4 million here in St. Louis to study ways and means of converting materials developed for aircraft into bridge building materials, convert

military aircraft plants and land ^{ARMY} ornament and ship building plants to builders of light rail trains and tracks and steel for bridges instead of bringing these goods into the United States, made in foreign countries by foreign labor forces.

Many of the products consumed in the United States could be produced domestically, as they were forty years ago by our own labor force, if there was sufficient incentive for investors to start manufacturing again in the United States.

The technology is available and the training of our own labor force could be funded or partially funded by use of federal funds that are now being used in the Defense Budget.

Within most States, there is a great need for building and rebuilding the infrastructure: bridges roads, airports, schools and other training facilities are needed. Much of the funding, which is lacking

now, could be provided through a conversion of some of the Defense Budget dollars ^{to} domestic use. Each State could administer many of their own programs if sufficient funds were made available.

The Social and Welfare needs go unmet to a large degree in many States, because sufficient funds are not available to support those needs. Here in the State of Missouri, there is a great need for additional case workers and social service workers; the present staff cannot meet the needs and find themselves so overloaded with cases that there is a serious "burnout" problem among dedicated, committed professionals. Those working in the Department of Social Services are paid salaries far below that of other professionals in private industry, which contributes to the problem of under-staffing. Teachers are being "furloughed" or "laid off" in many school districts because of a loss in revenue that will not permit the districts to maintain their past level of staffing.

State budgets could be bolstered by converting some of the Defense spending to States to help meet some of these crucial needs in those areas of infrastructure, social services, education, health care, transportation and other job opportunities.

Our Committee endorses the concept of reducing the military/defense budget without reducing the overall Federal Budget and converting much of the Defense Budget to a Domestic Needs Budget.

We do not support a tax cut as a result of reducing the military/defense budget but rather a transfer of these funds by congressional or executive action to domestic use. We urge the President to release the funds already allocated for conversion in order to start the process that we are talking about.

If there is a peace dividend to be disbursed, then it should be used to help build our faltering U.S. economy.

We believe and support the following recommendations:

- 1) A National comprehensive Health Care Plan could be partially funded by monies made available by converting some of the military/defense budget to domestic use.
- 2) The defense experts that say as much as one hundred fifty (150) billion dollars could be cut from the military/defense budget over the next five years and converted to these much needed domestic concerns.

Appendix C

Testimony Before Defense Conversion Commission August 20, 1992

Mr. Chairman, members of the Commission. Thank you for this opportunity to present to you McDonnell Douglas Corporation's perspective on the effect of defense cuts on our business and this community. I am Jim Caldwell, Director of New Business Development for McDonnell Aircraft Company, a major defense division of McDonnell Douglas.

McDonnell Douglas has been working on balancing our business between commercial work and defense since the merger with Douglas Aircraft in April 1967. I will show you examples of our progress. This process, however, takes time and resources.

McDonnell Douglas is the nation's number one defense contractor and remains committed to staying number one in the defense business. We are the third largest producer of commercial aircraft in the world and the seventh largest United States exporter. We are number 21 in the Fortune 500. We also remain committed to St. Louis. McDonnell Douglas was born and grew up in this community, and we intend to continue to make our future here.

I am delighted that you had the opportunity, yesterday, to make a plant visit to our company. The production floor provides a first hand experience of what we mean by the defense industrial base. It is the machines, the processes, the capacity and, most of all, the

people and their know-how that allow us to build the finest combat and military training aircraft in the world. F-15 and F/A-18 aircraft built by the people on that line accounted for all of the Iraqi fighter aircraft downed in aerial combat during Operation Desert Storm. Every single one! You also would have witnessed critical defense related core competencies in action had you visited any one of our other facilities, nationwide, whether the product is Apache attack helicopters, Tomahawk cruise missiles, Delta rockets, or the C-17.

As you know, McDonnell Douglas is a diversified aerospace company. There are today six component companies that serve our Government business segments: combat aircraft, helicopters, transport aircraft, missiles, space and electronics. Last week, in response to the demands of the marketplace, MDC announced the consolidation of these six Government Aerospace companies into two groups. At the same time, MDC announced the closing in 1993 of a major production facility in Ohio that makes parts for the C-17 as well as commercial aircraft. This is but one example of the painful actions required to deal with the serious problems of excess capacity in our industry.

These structural changes, details of which will be developed over the next several months, will result in more streamlined operations and even greater efficiencies for our company. They are part of our strategy to concentrate our business where we are--or can become--the number one or two company worldwide in all of our principal aerospace businesses. In a recent message to employees, John

McDonnell laid out his vision for the Corporation. Included in that statement was the following:

Even as our markets shrink in the 1990s, we will not stray beyond the boundaries of our core aerospace capabilities and a few selected complementary businesses that flow from capabilities needed for, and provide continuing benefits to, our aerospace businesses.... Our best road to success is for us to demand top performance from all of our businesses in the field we know best, and the best way to achieve that is by becoming the preeminent team of people in aerospace.

The actions that MDC has taken over the past several years, many of them painful, to increase our competitiveness, and the actions announced last week to sharpen our focus on our government aerospace businesses, have put us on the right road.

The defense market accounts for over half of our revenues, which in 1991 totaled over \$18 billion. It is not possible to project with certainty the extent and effects of the contraction of our defense related business base. Even in decline, we believe the U.S. defense market will remain large. MDC has all three of the major military aircraft programs in production today that are included in DoD's procurement plan after 1993. They are F/A-18 Hornet, the C-17 military transport, and the T-45 naval trainer. Nonetheless, the impact of major cuts in defense procurement is real and imminent for McDonnell Douglas, and for St. Louis.

The fact that employment at McDonnell Douglas has dropped significantly in recent years is well known. In June 1990, corporation wide, we employed 132,960 people, 42,033 of whom were employed in the St. Louis area. In June 1992, corporate-wide employment stood at 99,096, and St. Louis area employment had been cut to 29,607.

Important to the Commission's deliberations is that most of the 33,864 jobs eliminated corporation-wide to last June resulted, not from defense cuts, but from declining commercial business, divestitures, and painful steps to cut costs for greater competitiveness in a global market. Most of the job eliminations directly attributable to defense program cuts are still ahead of us, and will be felt with particular severity over the next two years.

In the combat aircraft sector, U.S. orders for the F-15, the AV-8B and the AH-64 Apache are coming to an end and international orders will be required to keep those production lines open.

The F-15 fighter production line is in the process of shutting down now and layoffs have begun. Unless the government permits Saudi Arabia to purchase the 72 F-15's that country has requested, the F-15 production line will terminate in the third quarter of 1994. If the Saudi request proceeds, a decision that we firmly believe must be made this year, then the F-15 line will continue into 1997, preserving jobs for 40,000 aerospace workers nationwide. This

would extend an important defense industrial base capability at no cost to the U.S. taxpayers.

Production of the AV-8B in the plant you visited yesterday, also is scheduled to end in 1994 when the Marine Corps will receive the last of its 276 aircraft. MDC and British Aerospace are working on a radar equipped upgrade of the AV-8B with broad export potential. The governments of Spain and Italy are tentatively committed to sharing a substantial portion of the development cost and to purchasing the upgraded version. However, the U.S. Government has not committed the funds needed for remanufacture and upgrade of existing AV-8Bs in the U.S. fleet.

The last of a total buy of 807 AH-64 Apaches, built by our Helicopter Company in Mesa, Arizona, is scheduled for delivery to the U.S. Army in late 1993. Overseas orders for the Apache will extend deliveries until mid-1995, but additional export orders are needed to sustain the full production line into 1996, when a proposed modernization program to remanufacture existing aircraft will enter production.

The F/A-18 Hornet program has emerged from tough budget choices by the U.S. Government as the cornerstone of naval aviation plans. The Navy plans to continue procurement of the F/A-18C/D models, and to begin developing an advanced version of the Hornet, the F/A-18E/F with increased range and payload, and other improvements.

Under current DoD plans, the Hornet will be the critical product in maintaining MDC's combat aircraft defense industrial base capability through the remainder of the decade and beyond.

The F/A-18 is already in service internationally with the air forces of Canada, Australia, Spain and Kuwait, and has been selected by Switzerland and Finland. The rate of U.S. production will have a strong influence on our cost competitiveness for the export market.

The T-45A trainer aircraft, part of the Pentagon's first fully integrated training system, is also in production in St. Louis.

Turning to our missile segment, which has production facilities in the St. Louis area and in Florida, we also face a declining business base. U.S. orders for the basic Harpoon missile stopped in 1989, and we depend entirely on overseas orders for the continuation of this line. The SLAM missile, a derivative of the Harpoon which proved so effective in Desert Storm, is in production but DoD has not requested additional funding in either the FY 1992 or FY 1993 budget requests. Continuation of this program is now before the Congress. The Tomahawk cruise missile, another enormous success in Desert Storm, is included in procurement plans, but a U.S. Government buyout is anticipated in the next year or two. The Advanced Cruise Missile, for which McDonnell Douglas qualified as a co-producer in 1991, was terminated this year as part of the Administration's strategic arms initiatives.

The work of our Electronics segment in St. Louis, in addition to such products as Laser Cross Link for the Defense Support Program, contributes to many McDonnell Douglas products and, thus, is impacted by production rates on those programs.

Mr. Chairman, in the interests of time, I will not detail the status of products of our California-based companies. Let me emphasize, however, that the C-17 in production at Douglas Aircraft and Space Station Freedom and other products of our Space Systems Company are critical to our government aerospace future, as are the commercial airplanes of Douglas Aircraft to our commercial aerospace future.

Let me now turn to what we believe the government can do to help us meet the challenges of preserving the U.S. defense industrial base.

I start with the premise that government does have a role in the defense industrial base. Normal market forces alone cannot guarantee that our single customer, the DoD, will in the future be able to buy what is needed when it is needed. The DoD has policies, strategies and plans with regard to its forces. It should devote no less attention to ensuring that the forces will be supported by an adequate and responsive industrial base.

As a system prime contractor, McDonnell Douglas has some concerns about the new approach to defense acquisition announced with the FY 1993 Defense Budget. While a shift away from production is

understandable and necessary in view of the changing threat and defense budget plans, necessary changes in the total acquisition process have not been forthcoming. These changes must address the situation of system prime contractors who must operate their own facilities with substantial fixed costs and whose fee structure principally has depended on production for financial return. Without such change, technology demonstrations or rolling over technology into new development programs until circumstances warrant production is unlikely to provide the financial return needed to keep system prime contractors healthy. Moreover, a succession of technology demonstrators or prototypes does not address or demonstrate the complex transition from development to production, and they are unlikely to preserve critical core competencies or capacity required to make the transition to production in the future.

Government also needs to create an investment climate that supports a strong defense technology/industrial base. There needs to be less of the adversarial relationship that has characterized the recent past. A more cooperative partnership between DoD and industry is necessary to assure the alignment of limited resources to critical priorities through the communication of plans and requirements. More budget stability, at whatever level, would greatly enhance our ability to plan effectively for human resource, capital equipment and capital funding needs.

The government has already begun to take positive steps to reverse some of the policies of the last decade that resulted in low profit

margins for defense companies. These low profit margins have resulted in low bond ratings and stock prices, which make it difficult to attract capital at competitive costs and to sustain healthy R&D and capital equipment investments. The poor profit margins are directly attributable to past policy decisions including fixed price development contracts, reduced progress payments, dual source production contracts, and tax policy changes.

MDC joins with the defense industry generally in supporting the changed policy on fixed price contracts and full recovery of IR&D, and in encouraging tax and other incentives for R&D, providing stable funding for programs through more use of multi-year funding, accelerating and increasing progress payments and returning to the completed contract method of accounting. We also encourage policy efforts to break down the barriers between commercial and defense technologies, such as the reduction of military specifications and the elimination of unnecessary accounting requirements and audit procedures.

We believe that a defense industrial base strategy should include more privatization of defense industrial functions now performed by government depots. Shifting manufacturing, modification, update, repair and logistics support of military systems from government facilities to the private sector would provide cost-effective support and at the same time help provide the critical mass necessary for technological advancement and preservation of system prime production capabilities for the future. This also would provide an

expanded surge capacity during future conflicts. The Harpoon program is an outstanding success story of how "cradle to grave" product support by private industry can cost-effectively meet the military customers' need for high availability and reliability.

I noted previously how a number of product lines will depend increasingly on foreign military sales. We recognize that all foreign sales must be consistent with U.S. foreign policy considerations. Where consistent with U.S. foreign policy, international military sales are an outstanding method of "win-win-win" for industrial strategy. The production base is sustained, balance of trade is bolstered, and broader economic goals are fostered as national foreign policy objectives are met. Within the context I've just described, we strongly support aggressive U.S. Government action to include such things as investment, tax and/or financing assistance, as U.S. industry competes abroad. The recent initiatives regarding the elimination of recoupment charges for prior research and development funds are a positive step in this direction, and have our strong support. This both applies to commercial spin-offs from military products and to international sale of military defense equipment. The elimination of recoupment charges would allow U.S. industry to be far more competitive in the world market.

We must recognize that our allies have real alternatives to exercise in meeting their legitimate defense requirements, and will go elsewhere for military equipment if the U.S. Government does not aggressively support U.S. industry. The current Saudi F-15 situation,

with its domestic jobs implications noted earlier, and its implications for European Fighter Aircraft competitiveness, is a classic example of both the potential benefits of such sales and the potential disasters associated with losing, or (worse yet) refusing to compete.

We recognize that increasingly, the defense technology/industrial base will rely on the overall U.S. technology/industrial base. We therefore encourage policies that maintain high levels of investment in science and technology, foster stronger mathematics and science education programs, provide financial incentives to develop academic-industry partnerships, and support non-defense related national initiatives with strong linkage to technology development. Examples of the latter include civil space programs and high speed civil transport.

Mr. Chairman, to summarize, McDonnell Douglas intends to remain in the defense business, and we remain committed to our St. Louis roots. We see many challenges ahead as we deal with the problems of excess capacity in the face of shrinking defense needs. We have strategies in place that will permit us to meet the performance that we owe our customers and the return on investment that we owe our stockholders. I have identified several policy areas where the government can help us to serve you better.

Finally, we must all recognize that technological pre-eminence depends on ideas, and ideas begin with people. The core competencies that set apart McDonnell Aircraft Company or

McDonnell Douglas Missile Systems Company, or any of our other component companies, as critical defense industrial base resources reside in the know-how of our people. As a corporation and as a nation, we must do everything possible to ensure that these resources continue to serve the strengthening of America's technology/industrial base. We believe that if the Government acts upon the recommendations that we have made, that there will be the breathing space that will hold our resources together and provide the earnings that will be needed to reinvest in the future as we face declining defense expenditures.

Thank you, Mr. Chairman. I will be happy to try to answer any questions that you or other members of the Commission may have.

MCDONNELL DOUGLAS

*Testimony Before the
Defense Conversion Commission
Chairman David J. Berteau*

by

*James P. Caldwell
Director, New Business Development
McDonnell Aircraft Company
McDonnell Douglas Corporation*

20 August 1992

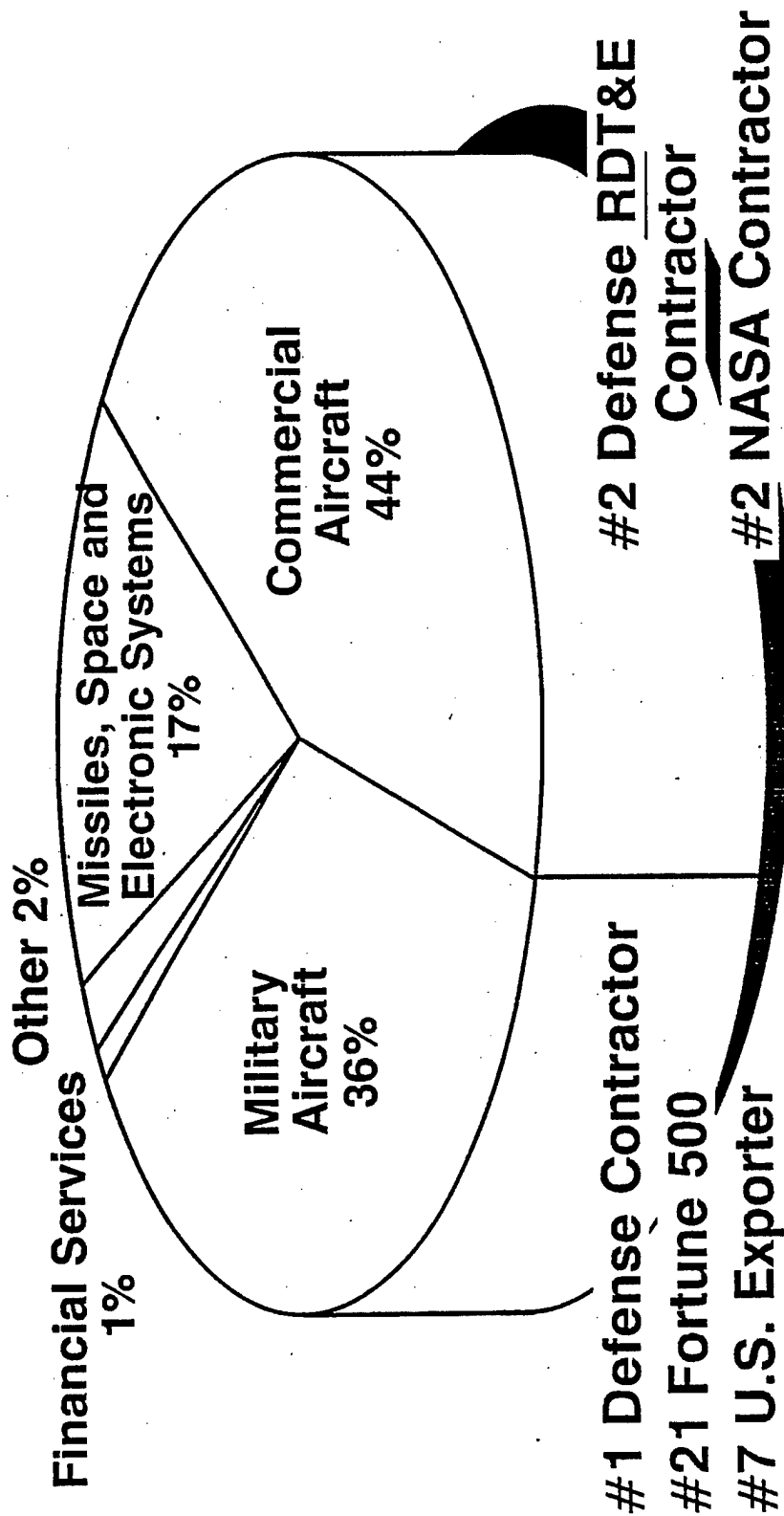
Outline

- Profile of McDonnell Douglas
 - Product Mix
 - Business Mix
 - Vision
 - Reorganization
 - McDonnell Douglas Employment
 - McDonnell Aircraft Company Products
 - McDonnell Aircraft Company Employees
 - Role in the Defense Industrial Base
- Importance of International Programs
- Recommendations for Government Support
 - Improvements in the Acquisition Process
 - Privatization of Depot Work
 - Foreign Sales Initiatives
 - Investment Incentives
 - Education

MCDONNELL DOUGLAS

Product Mix

30 June 1992

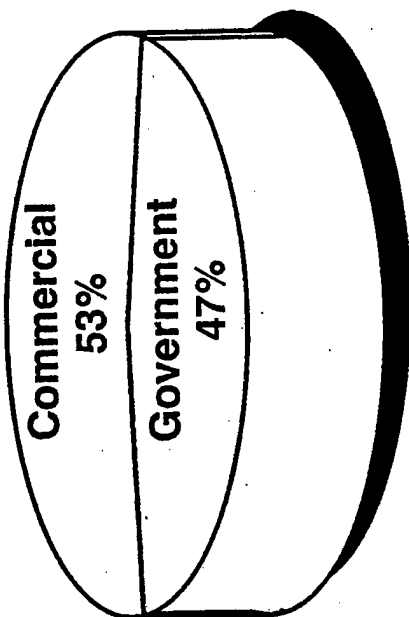
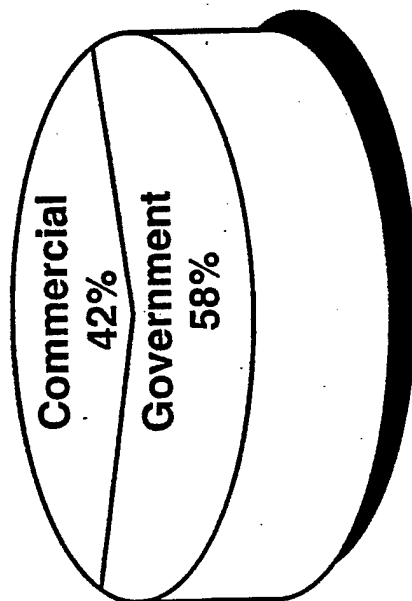


C20034.006 0813

Business Mix

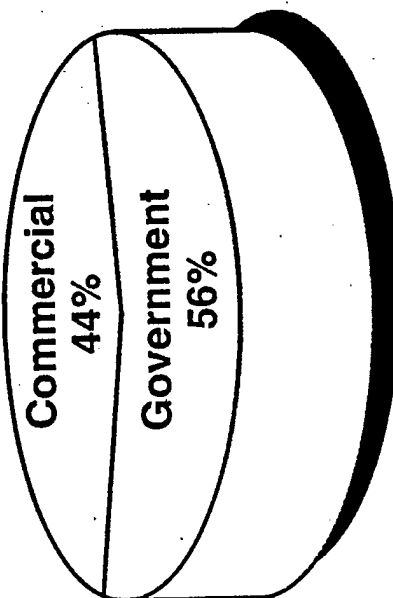
31 December 1991 *Total Backlog*

Sales

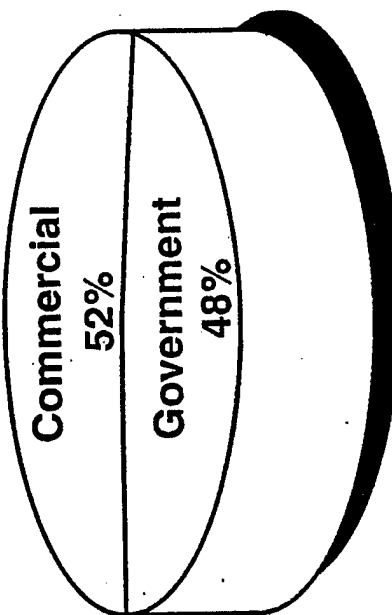


30 June 1992

Sales



Total Backlog



MCDONNELL DOUGLAS

McDonnell Douglas Corporate Vision

Even as our markets shrink in the 1990s, we will not stray beyond the boundaries of our core aerospace capabilities and a few selected complementary businesses that flow from capabilities needed for, and provide continuing benefits to, our aerospace businesses... Our best road to success is for us to demand top performance from all of our businesses in the field we know best, and the best way to achieve that is by becoming the preeminent team of people in aerospace.

John F. McDonnell
August 1992

MCDONNELL DOUGLAS

McDonnell Douglas Reorganization

Office of the Chairman

John F. McDonnell
Chairman/CEO

Gerald A. Johnston
President/COO

John P. Capellupo
Executive Vice President

Herbert J. Lanese
Executive Vice President/CFO

Kenneth A. Francis
Executive Vice President

The Senior Management Council and Policy-Making Body
for Government Aerospace Business

McDonnell Aircraft Company
McDonnell Douglas
Missile Systems Company
McDonnell Douglas
Helicopter Company

Robert H. Hood, Jr.
President
Douglas Aircraft Company
(Commercial)

McDonnell Douglas
Space Systems Company
McDonnell Douglas
Electronic Systems Company
Douglas Aircraft Company
(Government)

MCDONNELL DOUGLAS

McDonnell Douglas Employment

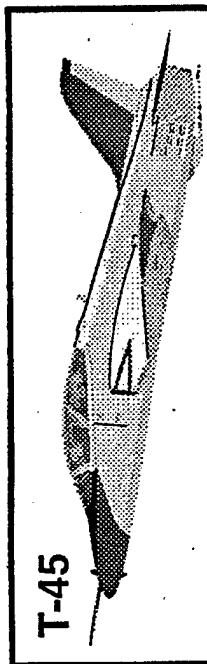
June 1990 June 1992

MDC 132,960 99,096

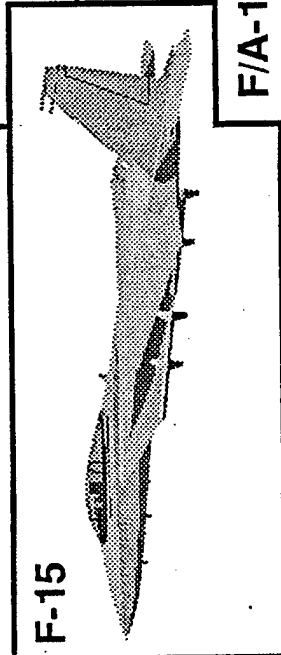
MDC-St. Louis 42,033 29,607

McDonnell Aircraft

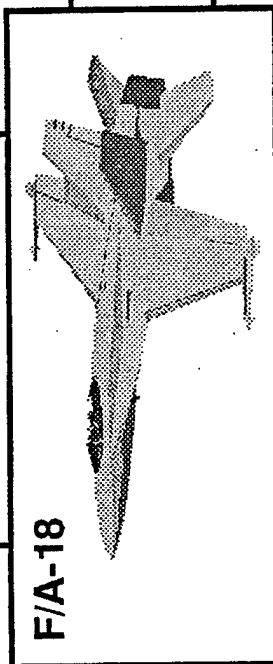
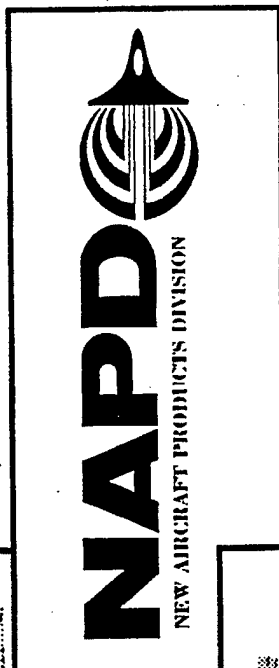
109



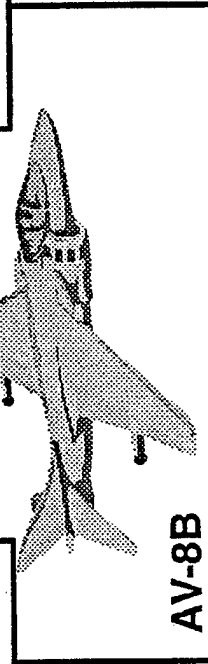
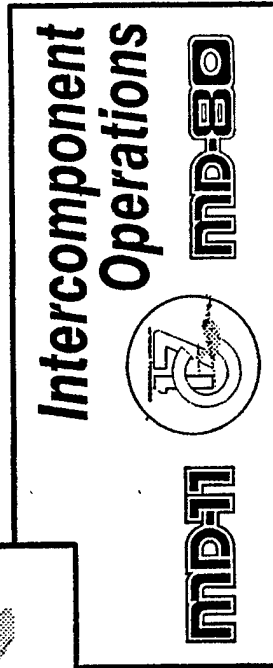
T-45



F-15



F/A-18

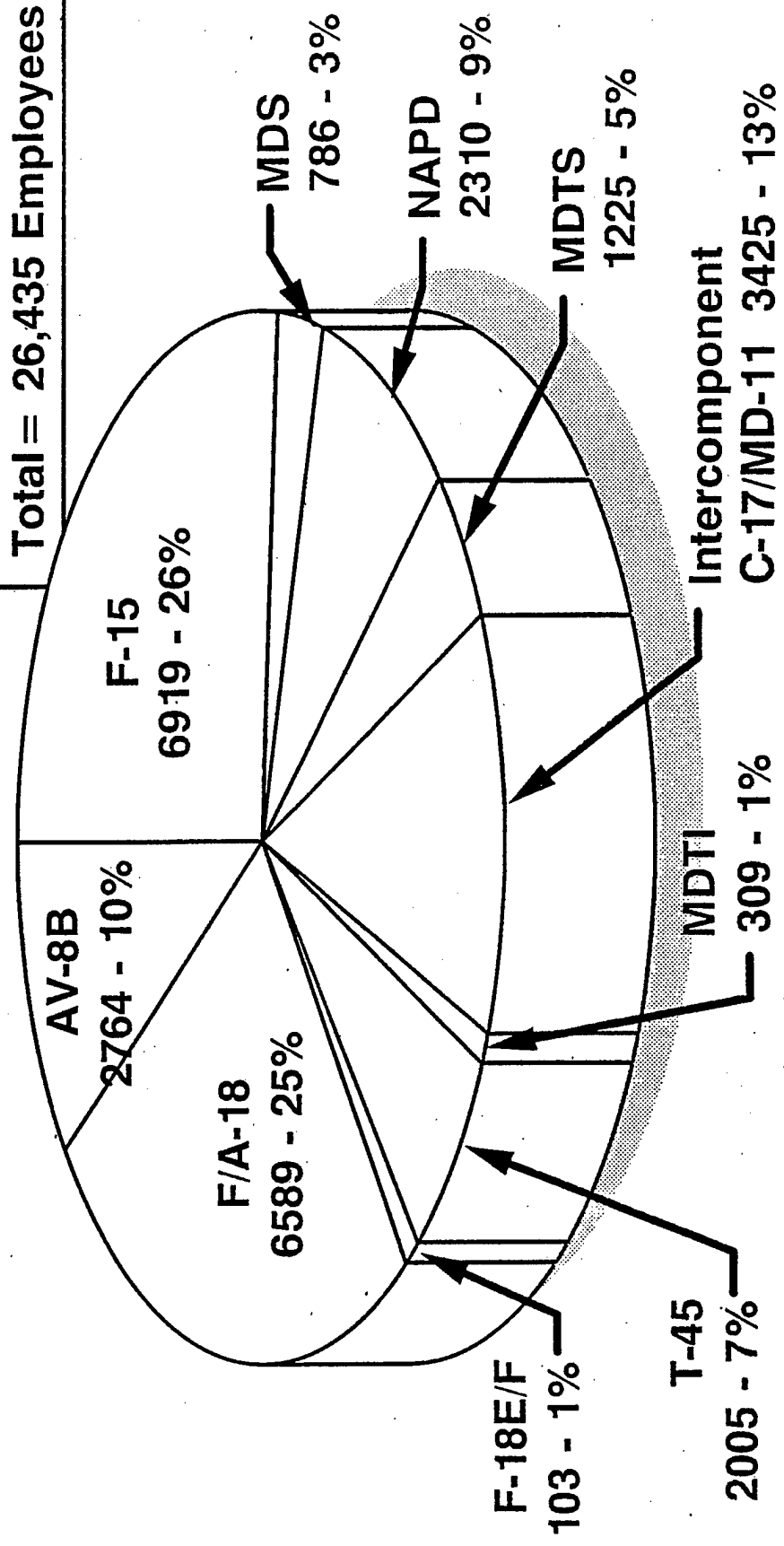


AV-8B

Employees

30 June 1992

Total = 26,435 Employees



Role in U.S. Defense Industrial Base

- F-15E Is One of Two Active Tactical USAF Fighter Production Lines
- F/A-18 Could Become the Only Active Navy Fighter Being Funded
- Prime Contractor for Only USAF and USN Trainers in Production:
 - USAF T-1A Jayhawk
 - Navy T-45 Goshawk
- AV-8B Only Production VSTOL Aircraft in the World
- Institutionalizing Development/Prototyping Through NAPD
- Outstanding Technical Expertise and Laboratory Facilities
 - Over \$300M Per Year in Research & Development
- Major Driver in U.S. Economy
 - 26,435 Employees (+ Multiplier)
 - Over 200,000 Jobs Nationwide Directly Tied to MCAIR Products

MCDONNELL DOUGLAS

Importance of International Programs

- Aerospace Sales Provide 10% of Total U.S. Exports
- Comprised 20 - 30% of MDC Annual Sales Over the Last 20 Years
- Reduces Cost of U.S. Procurement and Support
- Supports and Maintains U.S. Industrial Base at No Cost to the U.S. Taxpayers
- Serves National Security Interests Worldwide with Our Allies
- Critical Priorities Now at McDonnell Douglas
 - Saudi F-15: 72 Aircraft \$5 + B Sale, 3 Years of Production, 40,000 U.S. Jobs with 7,000 at MDC
 - Continued F/A-18 Sales Worldwide Over Next 15 Years
 - AV-8B International Collaboration with Spain/Italy
 - Continued Harpoon/SLAM Production
 - Delta Launch Systems Worldwide
 - 50% of Commercial Aircraft Sales

Recommendations

- Improve the Acquisition Process
 - Production Needs to Be Maintained - Prototyping/Technology Demonstrators Are Not Enough
 - Improve Budget Stability to Improve Planning
 - Improved Profitability Needed - Higher Progress Payments
 - Eliminate Fixed Price Development - and Dual Sourcing at Low Rates
 - Full IRAD Recovery, Tax Incentive for R&D, Completed Contract Method of Accounting
- Privatization of Depot Work
 - Shift Manufacturing, Modification, Update, Repair and Logistics Support from Government to Industry
- Foreign Sales Initiatives
 - Recognize Foreign Competition
 - Proactive Support with Allies
 - Proactive Support with Congress
 - Tax Incentives and Financing Assistance
 - Elimination of Prior Research and Development Recoupment Charges

MCDONNELL DOUGLAS

Recommendations (Cont)

- Investment Incentives
 - Support National Initiatives Strongly Linked to Technology Development, Such as:
 - Civil Space Programs
 - High Speed Civil Transport
- Education
 - Foster Stronger Mathematics and Science Education Programs
 - Provide Financial Incentives to Develop Academia-Industry Partnerships

GOVERNOR'S INDIANA MILITARY BASE USE
COORDINATING COMMISSION
Room W-479, 402 West Washington Street
Indianapolis, Indiana 46204
(317) 233-4271

PRESENTATION TO THE DEFENSE CONVERSION COMMISSION
ST. LOUIS, MISSOURI
August 20, 1992

Glenn R. Lawrence, Executive Director of the
Governor's Indiana Military Base Use
Coordinating Commission, on behalf of
Governor Evan Bayh

Introduction

Thank you for the opportunity to address this Commission on behalf of Governor Evan Bayh and the State of Indiana.

As you may be aware, Indiana has been disproportionately impacted by the recent rounds of military base closing and realignment decisions. Within the next 3 to 5 years, three military bases will be closed and one will be deactivated or "mothballed" in Indiana. Our estimates indicate a loss of over 13,000 jobs and more than half a billion dollars in output and earnings being eliminated from the Indiana economy.

In addition, at a time when our state, like most others, is facing budget cutbacks due to the recession, we anticipate that the base closings will cause a loss of state sales, income and property taxes of at least \$12.3 million a year. While it is true that every state where bases are being closed will be impacted, we believe that Indiana will have to bear a disproportionate share of the burden. With the closing of the three bases, Indiana is now one of only six states without an active duty facility. The per capita job loss will be higher than any other state except Florida. And the cuts in total federal expenditures are far greater on a percentage basis than those faced by other states where bases are being closed.

Further, with the defense industry cutbacks being discussed, the 900 Indiana prime defense contractors with \$2.1 billion in annual production are facing the potential of a substantial reduction in their income. In addition, defense subcontractors and service businesses dependent on military expenditures will also feel the impact of the reduction. It has been estimated that approximately 23,000 Hoosier jobs will be eliminated within the next five years. The types of jobs affected range all the way from highly skilled technical areas to minimum wage service sector positions. I have included a number of charts which graphically show the impact on Indiana of the closings and defense spending reductions.

I point out these facts only to make you aware that the timing of these actions, coming during this period of a very stagnant economy, is placing substantial burdens on the state and local communities and governments. As I am sure you understand, the issue is not just loss of jobs. Unemployment, whether caused by recession or base closings and military contract cutbacks, ultimately involves a multitude of state agencies and programs including healthcare, social services, schools and the court system.

What is Indiana's Response to this Situation

While base closing is normally a local issue, the unique situation in Indiana of four active duty bases being closed or deactivated at the same time, mandates that there be a state-wide response, involvement and strategy. In January of this year, Governor Bayh created the Indiana Military Base Use Coordinating Commission by executive order, which is attached.

The members include the Governor as Chairman, the Lt. Governor as the Director of the Department of Commerce, the heads of four other state agencies (Natural Resources, National Guard, Environmental Management, and Corrections), representatives of the five Congressional Districts where military facilities are located, and private citizens knowledgeable in the areas of development, finance, urban planning, and environment.

The mission of the Commission is to coordinate and assist local communities in their efforts to plan for the conversion of the closing military bases, to re-train and find employment for dislocated workers, and to develop a state-wide strategy for dealing with the impact of the changes in the business community caused by base closings and future defense budget reductions. The efforts are focused on coordinating local, state and federal resources (both fiscal and technical) to facilitate community readjustment. The basic approach we have identified is:

- * Determination of the State's Defense Dependency--
 - what is the impact of defense spending cuts on communities, businesses and workers
 - what programs, funds and assistance will be required to adjust/respond to the cuts

- * Developing a strategy to address the following--
 - retraining workers dislocated as a result of defense cuts
 - identification of new markets for existing products or services
 - identification of new product lines
 - helping existing firms become competitive in a peace-time economy
 - beneficial use of property at closed bases, and planning assistance to the local communities

Project Implementation

As a first step in determination of defense dependency, the Commission, in coordination with the Indiana Business Modernization and Technology Corporation, a quasi-governmental body, and Indiana University has developed a survey to be sent to the 900 listed prime defense contractors. Results of the survey will be utilized to direct state efforts and assistance to:

- enhance manufacturing techniques and management practices
- locate and develop peace-time markets
- retrain workers for jobs of the future
- assess the competitive environment
- identify and develop emerging technologies
- assist in plant re-tooling and modernization
- place workers with skills in demand
- develop educational modules and programs

Second, working with the local labor-management teams, the Indiana Department of Labor, and the Indiana Labor Management Council, we will attempt to assess the needs and develop workable solutions to specific labor related issues. Attached is a working draft of those questions and issues raised to date.

The state will deliver this assistance through utilization of existing training, retraining, education and business modernization programs. Indiana is fortunate in that it has a number of successful programs already developed and in place such as Training 2000, Indiana Vocational Technical College, Workforce Development (Employment and Training Services), and the Indiana Business Modernization and Technology Corporation. I have attached a listing of some of the programs available in Indiana which can be accessed to assist both employees and businesses.

Further, in addition to the human issue, the "bricks and mortar" issue of planning for the re-use of the real estate and buildings at closed military bases, in the case of Indiana over 71,000 acres and 12,000,000 square feet of buildings, again mandates that the state be involved. There is no doubt that State agencies such as the Department of Environmental Management and the Department of Transportation will be called upon for both technical and financial assistance.

However, due to the continuing recession, all of our state agencies are currently working at their limit, both in terms of personnel and finances--physically and fiscally. Even our Commission has had to share phones, copy machines, staff and supplies with other state agencies.

Early this year, the Commission indicated an intention to apply for an OEA grant to assist in the state's coordination effort. Even though the statutes dealing with the DoD funds

transferred to OEA for base closing assistance authorize planning grants may be awarded to states and not just local organizations, OEA has steadfastly maintained the opposite. Therefore, we have applied for a grant through the EDA, and have received some encouraging news recently. However, we feel that this issue should be resolved in favor of authorizing OEA funding directly to a state, particularly in circumstances such as those which have occurred in Indiana.

Observations and Recommendations

One of the Commission's press releases stated that the Commission will deliberate "on the economic effects of major reductions in defense spending". I trust that the previous statements somewhat outlines the dramatic effect these actions will have on Indiana in particular.

The press release also stated that the Commission will review "recommendations for the retraining of Defense Department personnel and assisting companies in conversion from defense to commercial activities". The following are some of our recommendations which we submit for the Commission's consideration.

1. A federally funded, state directed grant program with reasonable flexibility should be authorized to allow states to provide assistance to communities impacted by either a base closing/realignment or other defense related drawdowns. We suggest that the funding be allocated as a supplement to the Governor's reserve under the Economic Dislocation and Worker Adjustment Assistance Act (EDWAA).
2. Funding should also be appropriated to assist the states in undertaking long-range development of new job and income opportunities. States would work with businesses to assist in redirecting their focus from defense to peace-time production.
3. Grants should be distributed through an allocation formula that includes factors related to both the impact of military base closures/realignments and the number of defense industry related employee displacements.
4. The states should be given maximum flexibility in the use of adjustment assistance funds in order to be able to respond to unique, state specific or time sensitive situations. States should be allowed to develop their own "formula for the future" relative to targeting those types of industries which appear to assure future global competitiveness, and not be restricted by a national determination.

5. States should be encouraged to use existing programs, such as those outlined in the list of Indiana programs, to avoid duplication and waste. Coincidentally, the federal government should continue to use lead agencies such as the DoD Office of Economic Adjustment, and the Department of Labor to administer these programs. However, some modifications in procedure should be implemented to ensure timely authorization and transfer of funds, with the state being specifically included as an eligible applicant.
6. Any program that provides direct assistance to workers and businesses should consider the impact on state and local agencies and service providers, and provide financial assistance to ensure the ability of the state to accommodate the expanded demand.
7. Worker and business adjustment assistance should be allowed well in advance of the actual "WARN" notice or contract cancellation. States should be authorized to design intervention strategies for defense dependent industries which may desire to re-tool and redirect their production capabilities immediately in order to avoid shut-downs and lay-offs.

Summary

We would submit that although Indiana has programs in place to effectively deal with economic adjustment, the current recession has resulted in a strain on the employee and business support system. The base closing/realignment decisions have exacerbated this situation, especially in Indiana where three bases are being closed and one deactivated. Therefore, timely assistance should be provided by the federal government, through state directed programs with sufficient flexibility, to deal with the added burden of defense spending reductions.

On behalf of Governor Bayh, I again want to thank you for this opportunity to address this Commission and present our observations and comments.

ATTACHMENTS

- A. STATISTICS CONCERNING MILITARY FACILITIES BEING
CLOSED/DEACTIVATED
- B. DEFENSE EMPLOYMENT--1991
- C. PRIME CONTRACTS--10 YEARS
- D. ESTIMATED JOBS LOSS
- E. EXECUTIVE ORDER
- F. ECONOMIC DEVELOPMENT/TRAINING PROGRAMS
- G. LABOR ISSUES

**SUMMARY OF CLOSING/DEACTIVATED MILITARY FACILITIES
State of Indiana**

	Grissom AFB	Fort Harrison	JPG	INAAP	Total
Land (Acres)	3,181(a)	2,501(b)	55,264(c)	10,649(d)	71,596
Buildings 000 sq.ft.	2,079	4,767	726	4,700	12,272
Capital Assets (\$000)	714,303	138,325	83,947	240,000	960,575
Retail Sales (\$000)	18,580	28,600	None	N/A	N/A
Op/Maint. Outlays (\$000)	24,127	4,900	21,993	3,600	54,620
Service Contracts (\$000)	7,887	63,000	700	5,800	77,387
Const. (\$000)	3,547	None	None	N/A	N/A
Direct Expendit. (\$000)	22,280	32,326	23,908	3,214	81,728
Military Personnel	2,308	2,200	13	2	4,523
Civilian Employees	1,357	(e) 5,144	372	991	7,864
Military Dependents	3,514	2,027	unknown	N/A	N/A
Total Personnel	3,665	7,344	385	993	12,387

- (a) Economic Resource Impact Statement - FY91, Grissom AFB.
 (b) SSC Econ. Strength Report - U.S. Army - Ft. Harrison.
 Capt. D. Holt, Public Affairs Office, Ft. Harrison.
 (c) Public Affairs Office, Jefferson Proving Ground.
 (d) INAAP - Charlestown, ICI Orientation Publication.
 (e) Does not include 3,005 civilians - DFAS, Ft. Harrison.

DEFENSE EMPLOYMENT

State of Indiana

1991

Private Defense Industry	63,946
Active Duty Military*	5,523
Department of Defense - Civilians	14,645
TOTAL	84,104

* includes active duty military personnel stationed in the States and in the District of Columbia, but not those stationed overseas.

Source: Defense Budget Project, Washington, DC

DEPARTMENT OF DEFENSE PRIME CONTRACTS

(Contracts over \$25,000)

State of Indiana

FISCAL YEAR	TOTAL ANNUAL PRIME CONTRACTS TO INDIANA CONTRACTORS
1982	\$ 2,010,045,000
1983	2,117,161,000
1984	2,521,610,000
1985	3,176,772,000
1986	2,490,142,000
1987	2,230,787,000
1988	1,518,076,000
1989	1,763,077,000
1990	1,695,481,000
1991	2,189,522,000
10-year average:	\$ 2,171,300,000

Source: U.S. Department of Defense

ESTIMATED JOB LOSSES
DEFENSE INDUSTRY EMPLOYMENT
(Based on Defense Budget Cuts)
State of Indiana

Year	Estimated Job Losses
1992	5,540
1993	7,412
1994	5,040
1995	2,125
1996	1,629
1997	1,258
TOTAL	23,004

Source: Defense Budget Project, Washington, DC

STATE OF INDIANA
EXECUTIVE DEPARTMENT
INDIANAPOLIS

EXECUTIVE ORDER 92-2

FOR: THE CREATION OF THE GOVERNOR'S INDIANA MILITARY BASE USE
COORDINATING COMMISSION

TO ALL TO WHOM THESE PRESENTS MAY COME, GREETINGS:

WHEREAS, pursuant to federal Defense Base Closure and Realignment Acts and the recommendation of the Defense Base Closure and Alignment Commission, certain military bases in Indiana, specifically Fort Benjamin Harrison, Grissom Air Force Base, Jefferson Proving Ground and the Indiana Army Ammunition Plant, have been recommended for closure or realignment; and

WHEREAS, the communities where these bases are located will experience major impact to their economies and daily lives by the closing of these facilities; and

WHEREAS, the local communities are forming committees to plan for the utilization of these bases by public and private entities to minimize any negative economic impact to the areas; and

WHEREAS, it is in the best interests of the citizens of the local communities and the State of Indiana to have planning for the potential beneficial state or local use of the property and materials performed in a coordinated fashion; and

WHEREAS, the State of Indiana, with its resources and personnel, is in a position to assist local communities in their efforts;

NOW, THEREFORE, I, Evan Bayh, by the virtue of the authority vested in me as Governor of the State of Indiana, do hereby order that:

1. There is hereby created the Governor's Indiana Military Base Use Coordinating Commission (referred to hereafter as the "Commission").

2. (a) The Commission shall be composed of a Board of Directors consisting of members who have distinguished themselves in their respective fields, and who share the common goals of facilitating the economic and recreational development of the resources of local communities and the State and the betterment of its citizens.

(b) All members of the Commission shall be appointed by the Governor and serve at his pleasure.

(c) Members of the Commission are not entitled to per diem, nor shall they receive reimbursement for expenses incurred in conjunction with in-state functions incident to the workings of the Commission.

(d) The Governor shall serve as Chairperson of the Commission and shall appoint one other member to serve as Co-Chairperson.

Executive Order 92-2
January, 1992

(e) The Commission shall:

(i) assist local community re-use planning commissions and governmental agencies with the securing of funding and information in order to plan for the most beneficial use of any property and materials which may be available to the state or local entities from the closure of the above named military installations;

(ii) assist, and coordinate with, local re-use planning committees, private organizations and governmental agencies in the development of strategies to determine the maximum beneficial usage of any property or materials which may become available from the facilities; and

(iii) recommend to the Governor and the General Assembly long and short term goals, objectives and strategies, including legislative proposals if necessary, which in the Commission's opinion will minimize any negative economic impact to the State and local economies, and will provide for the most beneficial use of said property to the citizens of the State of Indiana.

3. (a) The Commission shall consist of the Chairperson, a Co-Chairperson and at least 12 members, including:

(i) citizens who have experience or expertise in such areas as economic and community development, business management, real estate development or sales, environmental protection, financial planning, workforce development, and local affairs;

(ii) the heads of the Indiana Department of Natural Resources, the Indiana Department of Correction, the Indiana National Guard, the Indiana Department of Commerce, and the Indiana Department of Environmental Management or their designees; and

(iii) a representative from each of the five (5) Congressional Districts where military facilities are located.

(b) In addition, the Commission shall establish subcommittees to review specific facilities and which shall include as ex-officio members representatives of each local governmental entity within whose political boundaries the facility is located.

4. The Commission staff shall have an Executive Director appointed by the Governor and who shall serve at his pleasure. The Executive Director shall hire such other staff as shall be necessary to carry out the duties of the Commission.

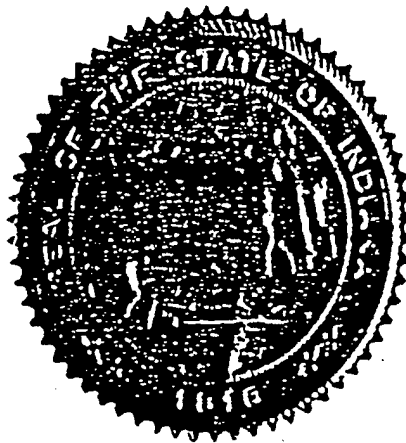
5. The Commission, through appropriate governmental units, shall be eligible to receive funds, including federal funds and private donations, to accomplish goals.

Executive Order 92-2
January, 1992

IN TESTIMONY WHEREOF, I have hereunto set
my hand and caused to be affixed the Great
Seal of the State of Indiana at the
Capitol in Indianapolis on this 15th day
of January, 1992.

Evan Bayh
BY THE GOVERNOR: Evan Bayh
Governor of Indiana

Joseph R. Hogsett
ATTEST: Joseph R. Hogsett
Secretary of State



ECONOMIC DEVELOPMENT/TRAINING PROGRAMS State of Indiana

Indiana's economic development programs were designed and implemented to support all of the State's industries to become and remain competitive in today's economy. With some adjustments, these same economic development programs can be geared to defense-related firms. In addition, the training, re-training and educational programs can be delivered to dislocated defense employees with minor evolutions in program design.

Just a sampling of Indiana's economic development programs of importance in any readjustment strategy include:

- o **Indiana Business Modernization and Technology Corporation** - works with business that are developing innovative technologies or products for production purposes. The IBMTC draws on public, private and education sectors to foster development of technology-based research and industry in Indiana.
- o **Training 2000** - provides financial assistance to industry to teach employees basic skills, both traditional (reading, writing and composition), and "new" (problem solving, team leadership, etc.), transferable skills, or company-specific skills needed to support existing and future capital investment and quality control procedures.
- o **Indiana Vocational Technical College (Ivy Tech)** - a state-wide system of vocational-technical schools offering training programs either on-site or in a classroom setting which are designed to industry-specific standards. Ivy Tech affords companies the ability to tailor educational enhancement programs to meet the needs of employees. Such training is designed to not only meet the needs of employers, but to increase the employability of the workers.
- o **Indiana Small Business Development Corporation** - supports the development and growth of small and emerging business enterprises by serving as a catalyst, linking entrepreneurs with management, technical and financial resources required for business success.
- o **Government Marketing Assistance Group** - provides marketing assistance and data base information free of charge to businesses interested in obtaining federal and/or state government contracts. GMAG also sponsors seminars on specific subjects related to government marketing strategies.

- o **Manufacturing Technology Service Center** - operating in five multi-county regions to help small manufacturing companies be competitively viable in today's global market. This proactive initiative is reaching owners and managers of companies to help them solve practical problems related to technology, training, marketing, etc.
- o **Employment and Training Services/Workforce Development** - administers Indiana's employment, job training, and unemployment insurance programs. Services delivered on a regional basis through 17 private industry councils in service delivery areas. IDETS coordinates delivery of JTPA programs statewide including EDWAA training through a Dislocated Worker Unit and Rapid Response Team. Providing early intervention allows dislocated workers the best opportunity to locate other meaningful employment.
- o **Office of Regulatory Ombudsman** - this Indiana Department of Commerce program works with businesses to obtain and prepare permits required to conduct business in Indiana, insuring timely compliance with regulatory requirements.
- o **Job Service Matching Program** - computerized match of employer job orders with job seekers. The system is designed to select the most qualified applicants to fill available jobs. Computer system for local and statewide matching is located in full-time and part-time local sites throughout the state.
- o **Indiana Development Finance Authority** - provides industrial development projects which retain or create new jobs with access to capital markets where adequate financing is otherwise unavailable. IDFA's objective is to mobilize private capital into job-creating projects by reducing the risk to potential lenders.
- o **Indiana Labor Management Council, Inc.** - provides on-site consultation to community groups in the process of forming labor-management organizations. Support is also provided to existing area labor-management organizations by providing consultation, technical assistance and training.
- o **Strategic Development Fund** - teams up two or more Indiana businesses by offering grant or loan money in the form of matching dollars. This program is designed to foster creativity and cooperation between industrial sectors or regions of the State. Sample projects

include: marketing programs, technology deployment, cooperative research, export development programs, apprentice programs, etc.

- o **Electronics Manufacturing Productivity Facility (EMPF).**
 - is a joint venture chartered to perform electronics research, production, demonstration and technology transfer. Under a cooperative research and development agreement with the Naval Air Warfare Center-Indianapolis, Indiana University/Purdue University-Indianapolis, Naval Surface Warfare Center - Crane Division, and private industry, the EMPF assists manufacturers of commercial as well as military electronics. EMPF teams with industry, academia and government to jointly identify, develop, transfer and implement innovative electronics manufacturing technologies, processes and practices to domestic firms.

GOVERNOR'S INDIANA MILITARY BASE USE
COORDINATING COMMISSION

LABOR ISSUES

The Commission is developing a comprehensive Indiana Defense Readjustment Strategy to both define the problems and to arrive at workable solutions to the needs of displaced workers affected by defense spending cuts.

The ranks of dislocated workers will include representation from various skill levels including, but not limited to:

Clerical/Administrative
Unskilled/Semiskilled/Skilled Production Employees
Scientists/Technical/Engineers

The development of a written strategy will provide a guide for effectively dealing with worker dislocations and address specific labor-related issues/questions, including:

- o Define worker pool to be dislocated as a result of defense cutbacks.
- o Define skills of persons presently employed but likely to be dislocated as a result of defense cuts.
- o Define potential "related labor markets" for workers to be dislocated. What are the "transferable" skills?
- o Define employee characteristics/demographics of defense and defense-dependent workforce. (This would most likely best be accomplished by the Labor/Management Committees at each facility).
- o Define all potential resources available to dislocated workers - not just employment/training services. (e.g. include child care, health, etc.) Are all programs available to all workers?
- o Define plan for service delivery to all affected workers.
- o Define characteristics of workers who are potentially "at-risk" by realignment/closure.

- o Define what services, if any, would be available to "indirect beneficiaries" of military spending. (e.g. base closing results in closure of an elementary school and the layoff of a school psychologist).
- o Define mechanism that has been/will be established to notify persons who need the services of Workforce Development that help is available.
- o Define the elements and anticipated costs of programs which may be utilized to increase educational/skill level of workers to be dislocated.
- o Define potential impacts on related services (e.g. unemployment insurance, etc.) and the costs to the state.
- o Define other impacts, problems and measures needed to reduce/eliminate adverse impacts on dislocated workers as a result of defense cuts.
- o Determine the organization, responsibilities and time frame for completion of Labor/Management Committees at each of the closing military installations.
- o Determine an appropriate mechanism(s) (e.g. a Labor/Management Committee) to address labor-related issues on bases scheduled for realignment.
- o Define problems and potentials of Defense Conversion Adjustment (DCA) program (e.g. limited program life, timetable for application, etc) and recommend program/policy changes to appropriate officials.
- o Define "defense-dependent" industries. What are the skill levels, needs of affected employees at these industries? What is the potential for a shift to non-defense production?
- o Define "eligibility" problems. Industrial lay-offs caused by defense cutbacks result in the issuance of WARN notices which are effective only 60-days prior to actual lay-offs.



TESTIMONY TO THE DEFENSE CONVERSION COMMISSION
HEARING: 20 AUGUST 1992, ST. LOUIS, MO.

I am Frederick Thomas Stark, President of the VisionAire Corporation. I have spent 35 years in developing aircraft and missiles both within the government and in private industry.

VisionAire is a new company that is developing a corporate jet airplane specifically tailored to the needs of small and mid-size companies. Experienced corporate aircraft marketing experts are convinced that our airplane will fill the needs of a large, untapped market.

When we reach our production objective of 100 airplanes a year, roughly six years from program go-ahead, we will employ 150 people. Total direct aerospace industry jobs created by VisionAire will be approximately 2,800. According to the Bureau of Labor Statistics, each job in manufacturing creates 3.4 other jobs. As a result, VisionAire will create over 10,000 jobs in the economy as a whole. The local, state and federal taxes resulting from this job creation will exceed \$90M per year, year after year.

Unfortunately, we have not yet been able to fully launch our development program. Although we are in contact with prospective sources of capital, to date insufficient funds have been raised. The total capital necessary to bring our product to market is \$50M. This is well beyond the funds available through the Small Business Administration. Venture capital firms say that the four years needed to develop our product is too long for their portfolios. We are also not in an industry favored by the financial community.

While we are convinced that funding will be found, it is taking a long time. Our employees are dedicated to our program and several, including myself, are working without salary. Those who do receive pay are working for a fraction of what they would be paid in other companies. We are fortunate that we have people who, at considerable sacrifice, are able to continue working toward making our company successful. We wonder how many other promising new business concepts are not pursued because those entrepreneurs cannot work without income for the time it takes to obtain financing.

It is well established that small start-up businesses are one of our nation's greatest sources of innovative products and job creation. Many of the displaced defense workers and discharged military members could find meaningful jobs in emerging companies such as VisionAire. Increased government funds and investment incentives to encourage small business job creation would be prudent at this time.

One potential source of funds is Independent Research and Development (IRAD) money, which is provided to prime contractors. IRAD funds are typically about 5% of the contractor's government sales. Contractors are relatively free to invest these funds in technologies that they believe will be important. Some of our technological superiority over Soviet weapons is the result of IRAD. However, with what is left of the USSR, the technology race is no longer as urgent as it used to be. Instead, we are facing global economic competition. Now is the time to establish new priorities for a portion of these funds.

We recommend that 25% of the IRAD funds be redirected to provide seed capital for new companies that would use defense-related technology and employ displaced defense workers. To aid existing defense companies in diversification, we recommend that they administer these funds and that they be permitted to take equity positions in the new businesses resulting from these funds. If a new business is unsuccessful, there should be no repercussions just as there are no repercussions when IRAD does not result in a useful product. However, when a new business is successful, the defense contractor stands to gain substantially, and the government will benefit from the taxes resulting from the increased economic activity. (Remember, a one-time \$50M investment in our company will result in \$90M in annual tax revenues.)

Advantages of this approach to job creation include:

- o Requires no increased government spending
- o Provides a badly needed source of seed capital for new, high-technology manufacturers
- o Creates jobs for displaced defense industry workers
- o Strengthens the U.S. economy and helps preserve the defense industrial base
- o Provides low-risk diversification opportunities for defense contractors

VISIONAIRE

C O R P O R A T I O N P.O.Box 16747 • St. Louis, MO 63105 • Phone (314) 862-1007



DATE: July 8, 1992

FROM: F. Thomas Stark
President

ISSUE: The Dept. of Defense is buying foreign aircraft,
costing U.S. jobs

While aerospace companies are laying off thousands of workers, the Dept. of Defense (DOD) is buying foreign airplanes often at higher prices than comparable U.S. airplanes. For example:

- o In May, 1992, the Air Force announced the purchase of 113 British Slingsby Firefly airplanes to replace the aging Cessna 172s which are used for initial pilot training. The Slingsbys will cost \$485,000 each including spares. The Cessna 172s cost less than \$100,000 each. U.S. companies such as American General, Thorp, Mooney or Cessna could have provided suitable aircraft.
- o The Navy T45 trainer is a British Aerospace Hawk modified for carrier landing. The basic design and much of the manufacturing is British.
- o The Air Force is buying ten (10) C27A transport aircraft from Alenia in Italy.
- o The Joint Primary Aircraft Training System (JPATS) competition to replace Cessna and Beech trainers is considering only foreign airplanes. The contract will be awarded in early 1994. Over 800 jet trainers will be bought at a cost of around \$3 million each.

Even though all of these programs have U.S. partners, the basic design and much of the production is overseas. This is weakening the defense industrial base and costing hundreds of millions in lost tax revenues. It is within the executive branch's ability to reverse this trend by simple policy changes -- legislation is not required.

Call me at 314/862-1007 if you want further details.

135

VISIONAIRE

C O R P O R A T I O N P.O.Box 16747 • St. Louis, MO 63105 • Phone (314) 862-1007



JPATS JOBS: U.S. OR FOREIGN?

136

April 1992



JPATS JOBS, U.S. OR FOREIGN?

A decision by the Department of Defense (DoD) not to spend money developing a new jet trainer aircraft for the Air Force and the Navy may have an unforeseen detrimental effect: It may move manufacturing jobs overseas at a time when the American economy needs every job it can get.

In looking for a replacement for the T-37 Air Force trainer, which went out of production some 30 years ago, and the T-34 Navy trainer whose basic design originated in 1953, the Department of Defense established the Joint Primary Aircraft Training Systems (JPATS) program. Because there is no need for new technology, the DoD let it be known that it wanted to buy an existing aircraft and that it would not fund development costs.

On the surface, that sounds like a laudable and prudent policy, a way to save American taxpayers' dollars. And it is a program the DoD has followed in other areas, such as computers, purchasing existing commercial equipment rather than developing a military equivalent.

But as F. Thomas Stark, president of VisionAire Corporation in St. Louis, points out, the decision not to fund development of a new primary trainer will mean that these airplanes will be designed and major portions of the aircraft will likely be built overseas, since no American company has a suitable aircraft on the market or in development at this time.

"The industry response to the DoD decision not to fund development has been to team up with foreign aircraft manufacturers," Stark said.

Rockwell has teamed up with Messerschmitt, a German company. Lockheed is partnered with Aeromicchi, Grumman with Agusta, both Italian companies, and Beech with Pilatus, a Swiss company. In each case, as much as 49 percent of the aircraft would be built overseas.

Stark says his company, VisionAire, a relatively new aircraft company based in St. Louis, is developing a high-performance, low-cost business jet that can, with some modifications, fulfill DoD specs for the JPATS trainer. Prototypes for the VisionAire jet will be developed in California by noted aircraft designer Burt Rutan. Stark would like his aircraft to be considered by the Department of Defense. However, without DoD dollars for development, it won't happen.

"We think we could be a subcontractor, designing and supplying the airplanes, with an existing defense systems contractor supplying integration, ground training simulators, course materials and maintenance," Stark said. "But when the government let it be known in the industry that it wouldn't spend money on development, American aircraft manufacturers chose to go overseas and become partners with companies who already have airplanes that could be modified as JPATS trainers."

Simply put, then, since no other American companies are committed to an American-built JPATS aircraft, the JPATS program will be taking aerospace manufacturing jobs out of the hands of Americans and putting them in Germany, Italy, Switzerland, Argentina or somewhere else overseas.

"With the JPATS program, the Department of Defense picked the one area in which they can't buy commercial and still buy American," Stark said. "I think the decision that the military should buy commercial wherever possible is a good one, but in this case, the effect of that decision is harmful to the American economy."

If the JPATS trainer is built overseas, several things will occur, none of them beneficial to the U.S. economy:

- Salaries will go to foreign workers, not Americans.
- Since the salaries are going overseas, federal, state and local governments will not see any of that money coming back in taxes.

"When an aircraft is developed domestically, just about every dollar the government spends in aerospace manufacturing comes back to all levels of government in the form of taxes," Stark said.

- In addition, money earned overseas is not spent in America, damaging other segments of the economy that would benefit from a stronger U.S. manufacturing base. "If you create one job, say at Rockwell, according to the Bureau of Labor Statistics, you'll create 3.4 other industrial and service jobs to support the manufacturing effort of the employee who's gotten the job in manufacturing," Stark said. "That's important at a time when so many Americans are out of work."

It appears that the Department of Defense is willing to pay \$3.5 million per JPATS trainer. But, Stark says, "even though the contract will require that 51 percent of the airplane be built in the United States, building the rest of the airplane overseas raises the true cost of the airplane well above \$3.5 million, since there's nothing coming back in taxes or other dollars being spent in America. It's a bad idea shipping American jobs overseas--that grows out of a good idea--buying commercial to save taxpayer dollars."

There is yet another problem: buying existing foreign aircraft and adapting those aircraft for American military use can equal or surpass the cost of developing and building American aircraft specifically for JPATS.

According to Stark, using commercial practices, the government could spend \$10 million with a new company to develop an American JPATS trainer (including the construction of two flying prototypes that would be used for evaluations). U.S. Defense contractors are provided discretionary R&D funds which they could use to develop a JPATS airplane if they should so choose. Once the airplane is selected by the Air Force or Navy, it would cost between \$50 and \$100 million dollars to finish the design and get the airplane into mass production.

That's a lot of money by anyone's standards. However, to buy an existing foreign airplane and reconfigure it for Air Force or Navy use would easily cost as much or more. "Some of these existing aircraft aren't pressurized, they don't have military-style instrumentation, and some don't have adequate ejection seats. That's just for starters!" Stark said.

However, even more costly to the taxpayer are the lost federal and state taxes resulting from foreign production. That could exceed \$1 billion over the life of the JPATS program.

ORAL TESTIMONY

Points that will be made in oral comments to the Defense Conversion Commissions on August 20, 1992, at St. Louis, Missouri by Mrs. Rose Kemp, Regional Administrator, Women's Bureau, U. S. Department of Labor, 911 Walnut street, Kansas City, Missouri 64106 (Region VII) -- Telephone: (816) 426-6108

The twentieth century marks the first time that large numbers of women have been utilized by the United States armed forces. This means, of course, that as defense downsizing occurs there will be the urgent need to address the issue of job training and career opportunities for these women in civilian capacities. Simply targeting women in the military and women veterans and female spouses as definable subpopulations worthy of programs specifically designed to address their distinctive needs would help.

From my perspective as Regional Administrator of the Women's Bureau and as an advocate for women as well as having been the spouse of a military careerist and now widowed as a result of my husband's chosen career I suggest for your consideration:

I. That before and after release from the military, women veterans be given adequate medical and psychological assistance and clearly articulated oral and written information as to how to obtain such services. Providers of gynecologists and psychologists services should be those that are trained in and oriented to the socialization and life experiences of military women and female spouses. The psychological services could be most beneficial if provided before leaving the service as a preparation for reentry into civilian life.

II. Women veterans are unaware of many services and programs available to them. In the discharge process it is important that women clearly understand the services they are entitled to including such services as provided under the U. S. Department of Labor's Economic Dislocation and Worker Adjustment Assistance Act (EDWAA). Many civilian women have been unaware of the Dislocated Workers programs when and mass layoffs occurred and this lack of information resulted in some women losing their entitlement to special services.

III. Women veterans face occupational segregation based on individual and structural factors.

-- The individual factors may become less of an issue as more occupations are becoming less gender specific as well as the shrinking of the labor force as called to our attention by the U. S. Department of Labor's publication "Workforce 2000: Work and Workers For The 21st Century."

-- Structural segregation may be more difficult to overcome for a variety of reasons including the fact that women trained in military occupations are as well-trained and as qualified as those workers who have been trained in non-military schools for the same occupations. However, the women veterans do not consistently have the credentials to help themselves access non-military positions in the same occupations or to be given seniority for their years of experience.

IV. Specifically designed programs to provide women veterans with the skills to effectively market themselves should be established. The traditional military occupations filled by women may, in many instances, be non-traditional in the civilian labor force. Women veterans need to have the ability to identify their skill levels to gain access to traditionally male work domains. In addition, military pay is based on rank and time in service and not on gender. Careers in corporate America and the nonmilitary public service are not as accessible for women as is somewhat documented in the department's "Glass Ceiling Initiative" report. Training programs for women soon to be separated from the military and women veterans should address strategies for accessing career paths.

V. Establishment of community one-stop resource centers would provide access to information as it relates to career exploration, career assessment, testing, job placement, and self-management and sociability skills training. The resource centers would also be a place to provide information on support groups as well as professional organizations that can be of value to women veterans and female spouses. It has been well documented that women veterans do not have the opportunities to get together as a group to talk, share, convey information and offer support to each other.

VI. The Women's Bureau is not an enforcement agency and not an employment service agency; however, we are knowledgeable of community resources and can provide direction to women or groups of women in need. The Bureau can initiate programs and projects to meet the needs of women with special and similar problems as will be the case with respect to women veterans and female spouses.

VII. It is my hope as a private citizen that the expertise and experiences of women veterans will be used to provide much needed public service including protective services, educational services and the rebuilding of America's infrastructures.

I have prepared for each of you a small packet of information including my written testimony and testimony from two women veterans that were unable to be here this afternoon.

Thank you for allowing me to present my thoughts. I appreciate this unique opportunity and stand ready to answer questions or provide clarification. I encourage you to use the services available through the Women's Bureau, the strongest voice in America for working women.

REMARKS
presented by

Region VII
Office of the Secretary
Women's Bureau
U. S. Department of Labor
911 Walnut Street
Kansas City, Missouri 64106
(816) 426-6108

at

Public Hearing

conducted by
THE DEFENSE CONVERSION COMMISSION

St. Louis, Missouri

Thursday, August 20, 1992

Public Hearing at St. Louis, Missouri
The Defense Conversion Commission
Women's Bureau (Region VII-Kansas City)

DEFENSE CONVERSION COMMISSION HEARING

TO: Chairman David Berteau, Defense Conversion Commission

-and-

Commissioners Carl J. Dahlman, L. Paul Dube,
Charles A. May, Jr., Douglas E. Lavin, Robin Higgins,
Michael M. Knetter

FROM: Rose Kemp, Regional Administrator

The office of the Women's Bureau, U. S. Department of Labor, located in Kansas City, Missouri, provides services to women in Region VII comprised of the states of Missouri, Kansas, Iowa and Nebraska. As you are aware, the Women's Bureau is mandated by a July 5, 1920 act of the U. S. Congress:

"To formulate standards and policies which shall promote the welfare of wage-earning women, improve their working conditions, increase their efficiency, and advance their opportunities for profitable employment."

In consideration of the proposed decrease in military personnel, civilian employees of defense agencies, as well as employees of companies facing reduced defense production, the Kansas City Regional office of the Women's Bureau wants to take this opportunity to provide for your consideration some information on

how women in this four-state region will be affected by the Defense cutbacks. We also want to provide some suggestions on how this office may be able to provide assistance to military females transitioning into civilian life and to civilian females moving from defense-related industries to other areas.

As Regional Administrator of the Women's Bureau, I have identified two other persons to assist in providing this information. One person, Mrs. Ruth Margolin will provide both written and oral testimony. The other person, Ms. Theresa Marie Suhling has requested that I provide to you her written testimony and a copy of her biographical sketch.

Mrs. Margolin is the Director, Women's Center, University of Missouri-Kansas City, Kansas City, Missouri. The basis for her testimony follows:

- 1) information she gained as a result of a grant from the Women's Bureau to learn about the experiences of women veterans. While these findings were from a small sample of female veterans, it is important to be aware that the "during" and "after" environment of the military with regard to women, consideration should be given to information obtained from small samples because of women's reluctance to share their military and veteran experiences; and

- 2) perspectives based on her number of years of experience in working with women from varied backgrounds and specifically women who were forced or who desired to make career changes.

Ms. Suhling's written testimony presented herewith is based on her experiences during her military career, as a veteran and subsequent research and community activities. She had a nearly nine-year military career in the United States Marine Corps.

Region VII Demographics:

1) Among the many defense production contractors in Region VII are:

-- McDonnell Douglas Corporation, the nation's leading one, which employs more than 30,000 workers in St. Louis, Missouri. Over the last two years McDonnell Douglas has laid off more than 11,000 employees as the military budget has decreased.

-- Allied Signal Aerospace located in Kansas City, Missouri employs approximately 4,487 workers; in March and April 1992, they laid off 827 people. No layoffs are anticipated for the next few months, but they do not as yet have their 1992-93 budget. This is a weapons production site; however, they are making efforts to gain greater business from other private purchasers of their services.

2) There are approximately seven major military installations in the four-state region.

3) As of March 1991, the estimated female veteran population in the region by state was:

Iowa 12,972

Kansas 10,050

Missouri 24,638

Nebraska 7,110

Total 54,770 (nearly five percent of the
total estimated number of
female veterans)

Of this total, approximately 22,184 (40.5 per cent) were in the
17 through 39 years of age group.

The Bureau of Labor Statistics' (BLS) Report 823, "Employment in
Perspective: Women in the Labor Force, for the First Quarter
1992, presents a labor force profile of female veterans. This
report states in part:

"... Comparing employed women, the survey found that veterans
were more likely than nonveterans to work as managers and
professionals and to be employed by the Federal Government.

Female veterans had a higher rate of unemployment than
nonveterans in September 1991 (9.4 percent versus 5.8 percent).

In this case, the large difference reflected very high rates of
joblessness among younger veterans, who often face a difficult
transition from a military to a civilian career. For example,
the unemployment rate for young female veterans age 25 to 34
years was 16.8 percent, compared with 7.1 percent for
nonveterans. ..." (Attached is a copy of BLS Report 823.)

Armed with information from reports like the one cited above, the
Women's Bureau will continue its programs and services assisting
young and old female veterans.

In addition to the potential for younger female veterans to encounter problems in transitioning from the military to civilian careers, the impact of military service on women would not be complete without mention of family-related challenges. One such challenge that will manifest itself as a result of the discharge from military service, is child care. In the civilian world, quality, competent and affordable child care is not always easily accessible to working women. Another issue is the dual-career military marriage where one may lose employment and suitable employment in the same area may not be available for the partner.

The Kansas City office of the Women's Bureau is in a position to provide to women leaving the military and to women losing their current employment in defense production the following services:

- direction as to the proper agency/organization for career assessment, testing, career exploration, job placement and self-management and sociability skills training.

- in five locations in Region VII, the Bureau was the catalyst for the establishment of Employment and Training Resource Consortium. These consortia bring together local agencies and organizations providing employment and training services to women and make possible greater geographical area coordination and collaboration among agencies as well as an effective referral network. Locations are: Greater Kansas City; Topeka, Kansas; St. Louis, Missouri; Omaha, Nebraska; and Lincoln, Nebraska.

- with knowledge of women's skill levels and employment

trends within a given community, an appropriate match with community resources can be accomplished (e.g. women with training and interest in the health care industry can be referred to the Area Hospital Association and/or one of its subsidiaries.)

-- through our Women In Skilled Trades Initiative (WIST) we have developed an excellent working relationship with the apprenticeship councils, chief executive officers/presidents of signatory agencies, as well as other union representatives and contractors. They are working to increase the presence of women in the skilled trades. In this respect, those women who have been trained in the military and in defense production in some skilled trade and nontraditional careers for women may be able to find their niche through interactions with one or more of the players noted above. WIST is a Secretary of Labor's initiative to help women and minorities move into skilled trades and nontraditional occupations. (A copy of Women's Bureau publication Get The Skills That Pay The Bills is attached.)

-- working cooperatively with the Federal Highway Administration we have established a working relationship with the State Highway Departments to increase women's presence in highway construction. Availability of trained women can be made known to these departments as they seek qualified women for job openings.

-- refer individuals or groups of women to the Job Training Partnership Act's (JTPA) administrative entities throughout the region for the purpose of determining if assistance can be provided through their job training programs. One of the

amendments to the JTPA requires that Service Delivery Areas (SDAs) establish goals for the training and placement of women in apprenticeship training programs and/or nontraditional occupations.

-- design and orchestrate conferences and seminars to meet the specific needs of special groups of women. The Bureau has an illustrious track record for presenting conferences and seminars of substance which serve to help women clarify for themselves their career goals. The conferences/seminars can also deal with other distinctive needs of women workers (e.g. building and maintaining self-esteem; patterns of occupational choices; self-perception).

-- refer women to the appropriate schools of technology and/or professional organizations in order for women to gain appropriate training to enhance their current skills in technology or to develop marketable skills. Professional organizations can assist women in finding out about career opportunities, certification and/or training opportunities. These organizations may also have members that will serve as mentors to women.

Please know that in addition to the above which are proactive measures from the Kansas City Regional Office of the Women's Bureau, the Bureau continues to work with the U. S. Department of Labor's Veterans Employment and Training Service (VETS) on joint activities to address the issues that may emerge as a result of downsizing military. We will be happy to share this information

with you on a continuing basis.

The U. S. Department of Labor is responsible for the implementation of programs under the Economic Dislocation and Worker Adjustment Assistance Act (EDWAA). Under that portion of EDWAA dealing with "Rapid Response to Military Base Closures," services can be provided to both the military and the civilian personnel at a military establishment. It is the suggestion of this office that the differences between the two groups be clearly examined and an improved method be devised to provide equitable services.

The military personnel may not end up in a concentrated group (like civilians who live and remain in the same area or like groups who remain in the same community at time of plant closings or mass layoffs) and be available for services under the EDWAA. This lack of a cohesive group may be especially true for women veterans who may by necessity return to their home cities or other locations where they are reasonably sure that a support system will be available to assist them with specific needs. In making the move from the area in or near the city where the military installation was located, women veterans may find it more difficult to participate in the EDWAA program by not being screened into the proper program by the Service Delivery Area (SDA) in the veteran's new place of residence.

To eliminate the potential for this disparity in treatment, women

veterans wanting to make geographical moves should be provided with proper papers to prove their entitlement for participation in the Dislocated Workers defense downsizing. In order to ensure services, a method should be put in place to guarantee the payment for services provided to them similar to those provided in a project developed specifically for a mass layoff for a specific employer. Each JTPA area has a limited amount of funds (based on a formula) to serve people already in each SDA and the SDA may not be as willing or as able to serve a person that has not been a continuous residence of their areas. Additionally, the perception of the SDA worker may be that an ex-military person may not have an immediate need for employment/training services. We all know that the world believes that military discharges and retirees are "well taken care of."

Spouses: The needs of spouses must be acknowledged and resources provided to assist them in the transition from military life and its structure. These women fall within the category of Women's Bureau constituency and can expect to receive any and all services available through our regional office.

Dual workers in military families may find it a necessity to relocate in order for the ex-military person to secure suitable employment. To maintain cohesiveness in the family, the nonmilitary spouse may make the decision to move along with her husband (or wife) rather than have a "long-distance" marriage and

a "nontraditional family structure." Most of our current legislation perceives the spouse to have left her/his place of employment voluntarily; therefore, by program guidelines spouses may be ineligible for program services. It is my suggestion that this be explored to determine how program guidelines can be inclusive to include "families."

TESTIMONY OF A WOMAN VETERAN:

I now would like to shift this discussion and present to you the thoughts of two women veteran.

Attachment 1 is the testimony of a woman veteran (Ms. Theresa Marie Suhling) who was unable to attend these hearings today and personally present to you.

Attachment 2 is the testimony of a woman veteran currently employed in a key position by the United States Government. She did not want to personally present her testimony afraid that in so doing she would jeopardize her career. I agreed to present to you her testimony and to preserve her anonymity. Attachment Number 2 is her exact text.

SUMMARY
OF
THE TESTIMONY
OF
THERESA MARIE SUHLING (SU-ling)

Situation

- Service sector appears to be replacing manufacturing as the economic base.
- Those serving the veterans must be aware of these trends.
- Three employment elements:
 - 1) blue-collar or trades-related
 - 2) white-collar
 - 3) entrepreneurial start-ups
- For technical skills, we need to identify the positions within the community and assist them to provide a smooth transition into it.
- Expansion of the OFCCP's jurisdiction to include apprenticeship programs. What better place to begin advocating more female participation than with our women veterans.
- Women veterans in attendance at the Fed. Exec. Com. meeting voiced an overwhelming concern regarding the stereotyping of women by employment counselors or being advised to accept a low position just to get their foot in the door.
- Entrepreneurial start-ups are attractive to both the individual as well as the community; however, women traditionally have a difficult time obtaining a loan or establishing credit.
- According to a NPR program, some womens' organizations have also been providing low interest loans.

Solutions

- Provide better trained and well-informed employment counselors at the local level.
- Establish a tracking system of the local unions as to who they accept into their apprenticeship programs.
- Educate employment counselors to identify and translate military skills, tangible and intangible, into skills that companies in the civilian community can relate to.
- Improve current counseling programs for outgoing veterans with employment seminars to be held at military bases by those who specialize in this field.
- Encourage banks to provide better service to those who have already served: the women veterans of our country.
- Create a clearinghouse of information these veterans can contact to find out where to look/go for assistance in setting up their own business.

TESTIMONY OF
THERESA MARIE SUHLING (SU-ling)

In light of the proposed mass layoffs from the armed services, we must position ourselves to be of assistance to the many veterans who will soon be searching for employment. As identified in my paper, Governmental Impact on Personal Economics, the service sector appears to be replacing manufacturing as the economic base of this country and is a rapidly growing element of employment for the 1990's. That is not to say that white-collar jobs will enjoy greater stability. The November 12, 1991 issue of the Chicago Tribune cites, "...the 1990's have brought a sharp slowdown in white collar hiring ...Economic troubles in the airline, real estate, banking and finance, and retail industries have resulted in such widespread layoffs of white-collar workers that it may take years to recover -if they come back at all."¹ Those who will be serving the veteran population in the years must be aware of these trends and how to effectively work within the parameters of what is available in the local community.

Considering the unique needs of our women veterans leaving the service and entering the civilian workforce three employment elements come to mind: blue-collar or trades-related jobs, white-collar positions and entrepreneurial start-ups.

For women veterans who have gained valuable technical skills and so desires to continue utilizing such skills or related ones, we need to help identify the positions within the community and assist them to provide a smooth transition into it.

As they face the 1990's, many employers are concerned about a possible shortage of skilled workers to perform increasingly technical jobs...Technical workers are projected to be the fastest-growing major occupational group over the next decade, and the U.S. isn't producing enough of them.²

Yet despite this concerned shortage, Secretary of Labor Lynn Martin identified that apprenticeships, which often feed into good paying jobs and are usually male dominated.

Martin has...embraced the idea of training women for "nontraditional jobs" - skilled blue-collar trades. Specifically, she endorsed the expansion of the OFCCP's (Office of Federal Contract Compliance Programs) juris-

¹ William Neikirk, "White-collar rehiring likely to inch along," Chicago Tribune 12 November 1991, section 3:7.

² Diane Crispell, "Workers in 2000," American Demographics March 1990: 39.

diction to include apprenticeship programs,...Many programs are run by unions, often as feeder programs for full-time jobs. Apprenticeships have, in general, remained overwhelming male. The expanded jurisdiction means that unions may face the loss of government accreditation of their apprenticeship programs if they exclude women...³

In a letter to Ms. Martin during my search for employment, I stated that what better place to begin advocating more female participation in such apprenticeship programs than with our women veterans, who in a lot of cases already have some basic skill training in a "nontraditional job"! Perhaps this would make it more acceptable to the unions in general, and it would certainly give the OFCCP some viable data to follow-up on.

The second element surfaced at the Federal Executive Board meeting last June. The women veterans in attendance voiced an overwhelming concern regarding the stereotyping of women by employment counselors for secretarial positions or advised to just get their foot in the door at a lower level and then advance. The practical application of leadership and management that our Veterans experience during their tour of duty(ies) is a valuable resource that many companies can use.

The third element, entrepreneurial start-ups are attractive to both the individual as well as the community in providing jobs for many. It is no secret that women traditionally have a difficult time going into a bank to secure a loan or establish credit. There are alternate choices to banks that women can and have been taking. Grants from either the state and federal government or from private corporations and organizations which are already championed by women are examples. According to a radio program I heard on NPR a few months ago some womens' organizations have also been providing low interest loans with a pay back period which reasonably allow the start-up a chance to get off the ground. Somehow we at least need to harness the information to pass on to the women veterans leaving the service or encourage the banks to quit their discriminatory practices.

Can we assist these women? Yes, by providing better trained and well-informed employment counselors at the local levels. These people need to be fully conversant in the economic factors of the surrounding communities they serve. Establishment of a tracking system of who the local unions accept into their apprenticeship programs compared against the number of women veterans who have applied would help bring the unions in-line. Educate employment counselors to identify and translate military skills, tangible

³. Peggy Simpson, "How Lynn Martin's Career Will Affect Yours," Working Woman October 1991: 89.

and especially intangible, into skills that companies in the civilian community can relate to. For instance, something as simple as being able to create a functional resume identifying leadership, communication, managerial skills.

Another option is to improve the current counseling program for outgoing veterans with employment seminars to be held at the military bases by allowing those who specialize in this field to have access to this potential pool of employees. Additionally, having a 1-800 phone number providing a link from the military bases to the communities that these veterans plan to return to would speed up the process.

Encourage banks to provide better service to those who have served: the women veterans of our country and quit treating them like second class citizens. Create a clearinghouse of information these veterans can contact to find out where to look/go for assistance in setting up their own business. There currently exists many organizations both veteran and not that do provide many good services. Somehow we need to harness all of this information into a central location on a local basis and ensure that this central location is well advertised to our returning veterans. The most logical choices for consideration would be the Department of Veterans Affairs or the Department of Employment Security.

BIOGRAPHICAL SKETCH
of
THERESA MARIE SUHLING (SU-ling)
Downstate Regional Manager
Department of Human Services
Secretary of State's Office

Theresa Suhling originally hails from Indianapolis, IN. She resided there until 1980 when she enlisted into the United States Marine Corps as a Marine Musician. Tours of duty took Ms. Suhling to Quantico, VA.; Nova Scotia, Canada; Okinawa, Japan; the island of Guam; San Diego, CA.; and then Springfield, IL as a Marine Recruiter headquartered out of St. Louis, MO. During her military career she qualified as a sharpshooter once on the M16A1, twice on the M16A2 and once on the 45. caliber service pistol. In December 1983, she was awarded her only personal decoration the Navy Achievement Medal; in general, for her work as the Quantico Marine Band's NCOIC (non-commissioned officer in charge), and specifically for enabling her unit to ship out in under 24 hours to assist after the Beirut bombing. Other honors include a Good Conduct Medal, an overseas ribbon and a meritorious unit citation. In 1989 after serving the Corps for close to nine years Ms. Suhling left the military to attend Millikin University where she obtained a Music Performance degree. Currently she is working on her MBA at Sangamon State University. Her duties as the Downstate Regional Manager not only keep her busy, but on the road a good deal as she has a staff of nine Outreach Representatives located state-wide; from Chicago Heights to Benton, IL.

TESTIMONY OF A WOMAN VETERAN

(Who wishes to remain anonymous)

Following are the thoughts of a woman veteran who served during the Vietnam War. She is currently employed in a key position by the United States Government and did not want to personally present her testimony afraid that in so doing she would jeopardize her career.

"Reduction in defense spending and downsizing of the Armed Forces will have grave implications on an already stressed unemployment situation in this country. We can expect a ripple effect within private industry that relies on defense contracts for their stability. With hundreds of thousands and perhaps millions of men and women competing for a disproportionate number of jobs available we as women are concerned about specific prospects of securing employment.

"Our concerns are based on the following:

- 1) December 1989 legislation was passed eliminating the Vietnam era veteran from eligibility for Veterans Readjustment Appointments (VRA) for federal employment. Unnoticed by this act was the effective elimination of 90 percent of the women who served during this era with non-competitive federal jobs.

- 2) Women who chose to serve in the military were trained in occupations requiring degrees in the civilian workforce, such as medical corpsman, nursing, air frame and power plant mechanics, etc. leave the military without the credentials necessary to compete with their civilian counterparts.

3) Women leaving the military to join the civilian workforce generally are behind in seniority status of their counterparts who did not serve. The results of which are during layoffs and reductions-in-force the veteran has little or no tenure to protect their position.

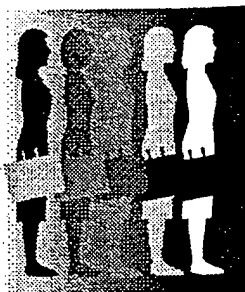
4) Male veterans historically have been treated after being diagnosed for shell shock, battle fatigue and most recently Post Traumatic Stress Disorder (PTSD). Women who have faced similar situations in addition to sexual harassment, sexual assault up to and including rape have not been recognized, diagnosed or treated. Women have gone back into civilian population crippled from these experiences expected to not only function but to surpass male counterparts.

With the hundred of thousands of qualified men and women re-entering the workforce due to military reduction and loss of defense contracts in private industry, we as women concerned the strides we have made into the "nontraditional" jobs will be jeopardized by gender specific qualifications.

In conclusion, women veterans fear as in World War II we may be faced with the same occurrence of entering the assembly lines and manufacturing plants while the men went off to war. Upon their return the women were forced out of the workforce and back into male-defined "traditional" roles. I suggest we have earned through our commitment and performance the elimination of traditional and non-traditional classifications.

Submitted By: A Vietnam-Era Woman Veteran"

Attachment Number 2



Employment in Perspective: Women in the Labor Force

Appendix F



First Quarter 1992

U.S. Department of Labor
Bureau of Labor Statistics

Report 823

Women are an important part of the Armed Forces and of the veteran population. This issue of *Employment in Perspective* presents a labor force profile of female veterans. The data were obtained through special questions asked in the September 1991 Current Population Survey, a sample survey of households conducted by the Bureau of the Census for the Bureau of Labor Statistics.

Female veterans

Changes in legislation and service regulations implemented during and since the Vietnam era, as well as changes in attitudes toward women in the military, have resulted in sharp increases in the number of women in uniform. Women now account for about 11 percent of active duty personnel, compared with less than 2 percent in 1970. Following the increase in the number of women in the military, the number of female veterans has also risen, reaching 1.1 million in 1991. In contrast, the male veteran population, although much larger at nearly 25 million, has been shrinking, as the losses due to deaths of veterans of World War II and earlier eras have outnumbered the gains from newly discharged veterans.

Characteristics. Among the few demographic differences between female veterans and nonveterans, the September 1991 survey found that a much higher proportion of veterans was at least 65 years of age. This reflects the impact of their voluntary induction in fairly sizable numbers during World War II. Also, veterans were less likely to be members of minority groups, with a particularly small proportion accounted for by Hispanics. More than half of all female veterans had served during a war period, with 17 percent having served during the Vietnam era. (See table A.)

Labor force. Overall, the proportion of female veterans age 20 and over who were in the labor force (53 percent in September 1991), was somewhat lower than the rate for nonveterans (58 percent), but this was entirely a reflection of the large proportion of elderly among the veterans. When more specific age categories are examined, veterans typically had the higher rates of labor force participation. Comparing employed women, the survey found that veterans were more likely than nonveterans to work as managers and professionals and to be employed by the Federal Government.

Female veterans had a higher rate of unemployment than nonveterans in September 1991 (9.4 versus 5.8 percent). In this case, the large difference reflected very high rates of joblessness among younger veterans, who often face a difficult transition from a military to a civilian career. For example, the

unemployment rate for young female veterans age 25 to 34 years was 16.8 percent, compared with 7.1 percent for nonveterans. Transition problems moderate with age, however. For 35 to 44 year olds, the unemployment rate for veterans fell to 4.1 percent, somewhat lower than the rate for nonveterans.

Table A. Characteristics of female veterans and nonveterans, 20 years and over, September 1991, not seasonally adjusted

(Numbers in thousands)

Characteristics	Veterans	Nonveterans
Population	1,112	91,686
Percent distribution	100.0	100.0
Age:		
20 to 24 years	4.4	9.9
25 to 34 years	24.0	23.2
35 to 44 years	17.7	21.4
45 to 54 years	11.2	14.6
55 to 64 years	10.6	12.0
65 years and over	32.0	18.8
Race and Hispanic origin:		
White	87.5	84.7
Black	9.8	11.7
Hispanic origin	2.2	7.3
Period of service:		
Wartime	56.6	(1)
Vietnam era	17.1	(1)
Other wars	39.5	(1)
Peacetime	43.4	(1)
Civilian labor force, total	584	53,284
Participation rate	52.5	58.1
Unemployment rate	9.4	5.8
Employed, total	529	50,214
Percent distribution	100.0	100.0
Occupation:		
Managerial and professional specialty	35.3	28.0
Technical, sales, and administrative support	42.5	43.0
Service occupations	14.4	17.2
Precision production, craft, and repair	3.2	2.1
Operators, fabricators, and laborers	4.3	8.6
Farming, forestry, and fishing2	1.1
Class of worker:		
Private wage and salary workers	65.2	74.3
Government workers	26.7	18.7
Federal	10.0	2.8
State and local	16.4	16.0
Self-employed workers	7.8	6.5
Unpaid family workers6	.5

¹ Not applicable.

Table 1. Summary indicators on women in the labor force, quarterly averages, 1991 and 1992
(Data are seasonally adjusted unless otherwise indicated; numbers in thousands)

Indicator	1991				1992
	I	II	III	IV	I
Population and labor force					
Women, 16 years and over:					
Civilian noninstitutional population ¹	98,905	99,106	99,316	99,528	99,723
Civilian labor force	56,728	56,986	56,809	57,059	57,582
Civilian labor force participation rates					
Women, 16 years and over	57.4	57.5	57.2	57.3	57.7
16 to 19 years	51.4	50.6	48.4	50.3	49.7
20 years and over	57.8	58.0	57.8	57.8	58.3
20 to 24 years	70.9	70.5	69.7	70.6	71.2
25 to 54 years	74.0	74.4	74.2	74.1	74.6
55 years and over	22.9	22.8	23.0	22.6	22.9
White	57.5	57.6	57.3	57.5	57.8
Black	57.1	57.4	57.2	56.6	56.9
Employment, status					
Women, 16 years and over:					
Employed	53,252	53,383	53,243	53,257	53,725
Unemployed	3,477	3,603	3,566	3,802	3,857
16 to 19 years:					
Employed	2,860	2,799	2,623	2,707	2,673
Unemployed	584	570	570	599	570
20 years and over:					
Employed	50,391	50,584	50,621	50,550	51,051
Unemployed	2,893	3,033	2,996	3,203	3,287
20 to 24 years::					
Employed	5,913	5,816	5,757	5,765	5,857
Unemployed	564	624	625	701	613
25 to 54 years::					
Employed	38,097	38,421	38,497	38,522	38,777
Unemployed	2,117	2,193	2,165	2,243	2,427
55 years and over:					
Employed	6,353	6,333	6,395	6,281	6,381
Unemployed	208	223	221	242	239
Unemployment rates					
Women, 16 years and over	6.1	6.3	6.3	6.7	6.7
16 to 19 years	17.0	16.9	17.9	18.1	17.6
20 years and over	5.4	5.7	5.6	6.0	6.0
20 to 24 years	8.7	9.7	9.8	10.8	9.5
25 to 54 years	5.3	5.4	5.3	5.5	5.9
55 years and over	3.2	3.4	3.3	3.7	3.6
White, 16 years and over	5.3	5.5	5.5	5.8	5.8
White, 16 to 19 years	14.3	14.9	15.4	16.1	15.4
Black, 16 years and over	11.4	11.8	11.5	12.7	12.5
Black, 16 to 19 years	35.9	32.7	38.0	37.5	35.5
Full-time workers					
Percent of employed women working full-time	74.6	74.3	74.3	74.5	74.7
Percent of unemployed women looking for full-time work	75.4	74.7	76.3	75.0	75.9

See footnotes at end of table.

Table 1. Summary indicators on women in the labor force, quarterly averages, 1991 and 1992—Continued
(Data are seasonally adjusted unless otherwise indicated; numbers in thousands)

Indicator	1991				1992
	I	II	III	IV	I
Duration of unemployment¹					
Average (mean) number of weeks unemployed women have been looking for work	10.9	11.1	11.8	13.2	15.0
Marital status					
Married women, husband present:					
Civilian noninstitutional population ¹	53,086	53,295	53,466	53,342	53,180
Civilian labor force participation rate	58.4	58.5	58.5	58.6	59.2
Unemployment rate	4.3	4.5	4.5	4.7	4.8
Women who maintain families:					
Civilian noninstitutional population ¹	11,418	11,366	11,628	11,699	11,788
Civilian labor force participation rate	61.7	62.2	61.4	61.2	61.4
Unemployment rate	9.1	9.3	9.0	9.2	9.5

¹ Not seasonally adjusted.

Technical Note

Data in this table are from the Current Population Survey, a national sample survey of 60,000 households. The information obtained from this survey relates to the employment status of persons 16 years old and over in the civilian noninstitutional population. Seasonally adjusted data for the 5 most recent years are subject to revision at the end of each year, based on recomputation of the seasonal factors to reflect an additional year of experience. For a detailed explanation of the Current Population Survey, including sampling reliability and more complete definitions than those below, see *Employment and Earnings*, published monthly by the Bureau of Labor Statistics.

Brief definitions

The *civilian labor force* comprises all persons classified as employed or unemployed.

The *civilian employed* are all persons who during the survey week: (a) Did any work at all as paid civilians; (b) worked in their own business or profession or on their own farm; (c) worked 15 hours or more as unpaid workers in a family business; or (d) were temporarily absent from their jobs due to illness, vacation, bad weather, etc.

Unemployed persons are those who had no employment during the survey week, were available for work at that time, and

made specific efforts to find employment sometime during the prior 4 weeks. Persons laid off from their former jobs and awaiting recall and those expecting to report to a job within 30 days need not be looking for work to be classified as unemployed.

Not in the civilian labor force are all persons not classified as employed or unemployed.

The *civilian labor force participation rate* is the civilian labor force as a percent of the civilian noninstitutional population.

The *unemployment rate* is the unemployed as a percent of the civilian labor force.

Full-time workers are those who usually work 35 hours or more per week. *Part-time workers* are those who usually work 1 to 34 hours per week.

Information in this publication will be made available to sensory impaired individuals upon request. Voice phone: (202) 606-STAT, TDD phone: (202) 606-5896, TDD Message Referral Phone: 1-800-326-2577.

For further information, contact Sharon Cohany, Division of Labor Force Statistics, Bureau of Labor Statistics, Washington, DC 20212. Phone: 202-606-6378.

PIPELINES OF PROGRESS

AN UPDATE ON THE GLASS CEILING INITIATIVE

**U.S. Department of Labor
Lynn Martin, Secretary
August, 1992**

TABLE OF CONTENTS

FOREWORD.....	1
EXECUTIVE SUMMARY.....	4
Workforce Trends.....	4
Corporate Management Reviews.....	5
Beyond the Pilot Reviews.....	7
Areas Warranting Greater Attention.....	8
What Works.....	9
Conclusion.....	10
WORKFORCE TRENDS.....	11
Overall Trends in the Federal Contractor Community.....	14
Major Industries.....	15
Large Companies.....	17
CORPORATE MANAGEMENT (GLASS CEILING) REVIEWS.....	18
Commitment Continues at the Top -- Despite a Change in Leadership.....	18
Reaffirmation and Commitment to Inclusivity and Diversity.....	19
Company with Rapid Growth through Acquisitions.....	21
One Company's Pipelines Yield Success.....	22
BEYOND THE PILOT STUDIES.....	24
Corporation in a Non-Traditional Industry.....	24
A Large Employer with Many Management Opportunities.....	25
Corporation with Little Formality.....	27
New and Emerging Companies: Work on the Ground Floor.....	28
Changing a Corporate Culture to One of Diversity.....	30

AREAS WARRANTING GREATER ATTENTION.....	33
Recruitment Practices.....	33
Lack of Opportunity to Contribute and Participate in Corporate Development Experiences.....	33
General Lack of Corporate Ownership of Equal Opportunity Principles.....	33
Performance Measures.....	35
Mobility.....	36
WHAT WORKS.....	37
Tracking Women and Minorities with Advancement Potential.....	37
Ensuring Access and Visibility.....	37
Ensuring a Bias-Free Workplace.....	38
Entering the Pipeline.....	39
CONCLUSION.....	40

FOREWORD

America is at a crossroad. Over fifty percent of its workforce is made up of minorities and women, yet it appears that their advancement is oftentimes hindered by artificial barriers -- glass ceilings. Can we afford, in today's global competition, to fail to make full use of the talent of all of our workers? Of course not.

When the Department of Labor, one year ago, released the report on its Glass Ceiling Initiative, it did so with its eyes on the future. At that time, we stated unequivocally that "the symptoms of this problem are manifest. Qualified minorities and women are all too often on the outside looking into the executive suite."

"Pipelines of Progress" is a look at what has occurred and is occurring, in America to ensure that artificial barriers are broken so that merit can determine the career advancement of talented minorities and women.

The basic message of this report is simple: While progress has been made in the workplace by minorities and women, the commitment and actions that led to this progress must be maintained and enhanced if the goal of full and equal employment opportunity is to be realized.

Over the past year the Department has made a strong and continued commitment to use its available tools and resources to remove glass ceiling barriers. We have done this because it is our responsibility under the law, and because it is the right thing to do.

We have prevailed upon employers to give this issue their personal attention. Our Office of Federal Contract Compliance Programs (OFCCP) has provided more than 25,000 hours of compliance assistance to those employers holding Federal Government contracts. That Office has initiated a new round of glass ceiling investigations using the knowledge and expertise gained from the pilot reviews of last year. We further continue to monitor the progress of the companies reviewed last year through progress reports and follow-up visits. Over 50,000 copies of "The Report on the Glass Ceiling Initiative" have been requested and distributed nationwide. Our Women's Bureau has organized and led discussions, conferences and public forums with senior managers and corporate executives from across the country.

This is the simple fact: few companies can afford glass ceilings. In a global marketplace that grows increasingly more competitive, companies need to promote the best people, regardless of race, gender, color or national origin.

Our pro-active outreach efforts reaffirm my belief that the '90s must be the decade of dialogue and action. There must be frank, honest discussion between employers and employees on career goals and on the expectations of employees and managers. There must also be open exchange between the Federal Government and those who fall within its mandates.

"Pipelines of Progress" does not mean that America's workplaces are free of discrimination. Much remains to be done by our business community, in unions, and in the public sector. The report does show what is actually being done this week, this month, this year, to change attitudes, perceptions and biases.

The Bush Administration and the Labor Department remain more than ever committed to shattering the glass ceiling. As we continue to look at the Fortune 500 world, we must begin to reach out to small and medium-sized employers. We can create networks of communication so that all employers can better manage and fully use the talents of America's diverse workforce. These actions are at the core of our obligation to ensure that America's working women and men remain the world's most productive and competitive workforce.

A handwritten signature in black ink that reads "Lynn Martin". The script is fluid and cursive, with the first name "Lynn" and last name "Martin" clearly distinguishable.

LYNN MARTIN
SECRETARY OF LABOR

Executive Summary

This report is largely focused on the steps companies can take and have taken to remove glass ceiling barriers. The companies discussed are those which have been subject to the Department's glass ceiling reviews as either part of the pilot reviews of last year, or as part of the ongoing reviews the Department now conducts. We believe this discussion should assist the entire corporate community, as individual companies identify their own glass ceiling barriers and implement strategies to remove them.

This report is also a good news, bad news document. The good news is that the participation rates of minorities and women in corporate management has improved. The bad news is that surveys in the corporate world do not point to an optimistic future unless commitments to positive change are sustained and enhanced. This report abounds with anecdotal evidence showing that glass ceiling barriers can be removed. It also demonstrates that the Department's enforcement effort must continue to be a critical component of the strategy to remove such barriers. But the report also underscores the fact that the challenge to shatter the glass ceiling takes far more time and effort than even the strongest of commitments can produce in one year.

I. Workforce Trends

Research data on workplace advancement has yielded mixed results. It is encouraging to note that there is an increased awareness of the issue of diversity in corporate America. The key to real progress in attaining this goal, however, still remains at the pipeline levels of advancement, well below senior level management.

A Business Week survey released this year of 400 female managers found that almost half of the respondents believed that large companies have done "somewhat better" over the last five years in terms of hiring and promoting women executives. More than half of these same respondents also believed that the rate of progress has slowed down. Seventy percent of those female managers polled believed that the male-dominated corporate culture was an obstacle to their success (up from 60 percent two years ago).

A recent study of career progressions of over 1000 male and female managers in 20 Fortune 500 companies by researchers at Loyola University of Chicago and the Kellogg Graduate School of Management found that while these two groups were alike in almost every way, the "women with equal or better educations earn less on average than men and there are proportionately fewer women in top management positions."

The Department's own analysis of data filed by those companies holding Federal contracts does show, however, that minorities and women have made progress over the past 10 years. The proportion of corporate officials and managers who are minorities and women significantly increased during this time period.

II. Corporate Management Reviews

During the past year, the Department has been monitoring the progress of the companies reviewed in the first round of pilot reviews through progress reports and follow-up visits.

The first round of reviews found that many of the Federal contractors believed they were in compliance, but when reviewed were found not to be. As a corrective measure, not only did the Department require progress reports, but it also conducted follow-up visits to substantiate the progress.

Some specific examples of the positive effects from the reviews and follow-up include:

- * **Commitment Continues at the Top -- Despite a Change in Leadership.** During our follow-up visit to this company, the new Chief Executive Officer (CEO) expressed concern that his corporation was still not where he wanted it to be with regard to diversity, but that they were actively attempting to monitor internal systems to ensure that qualified minorities and women could have access to the top based on merit. The company has made equal employment opportunity a performance appraisal standard for senior management and has experienced good results in expecting managers to make good faith efforts to include qualified women and minorities for promotional considerations.
- * **Reaffirmation and Commitment to Inclusivity and Diversity.** Actions include a new performance appraisal system which contains a specific component appraising performance in the area of equal opportunity and making this an integrated management concern, not just a human resource function; corporate-wide diversity training to increase management understanding of the importance of nondiscrimination and good faith efforts in hiring, promotional and management development opportunities; and implementation of an employee opinion survey to provide confidential feedback.
- * **One Company's Pipelines Yield Success.** A reorganization at this large Fortune 500 company resulted in the placement of all of the corporation's equal employment responsibility under a centralized management structure, and the establishment of critical measures to achieving workforce diversity. Since January 1, 1992,

a number of women have been appointed to senior management positions, two of whom are members of a minority group. A minority male was also appointed to a group manager position.

III. Beyond the Pilot Reviews

Compliance reviews have continued in a measured, precise fashion. Results indicate that many of the companies audited since last year have changed their culture to one which values diversity. We continue to find that if the CEO is committed to ensuring diversity, it can happen. Such commitment notwithstanding, progress varies. Examples include:

- * **A non-traditional industry for women**, a utility company in which the workforce had been primarily male for the past 100 years, is taking large strides to develop a diverse workforce through the new CEO's requirement of good faith efforts and accountability at each level of management. Actions include an executive recruitment effort which led to the hiring of women and minorities in high level positions; and the development of systems of mentoring, networking and identification of minorities and women with potential and providing them with information on career paths.
- * **A company without a formal system for development** and few women and minorities in the pipelines for advancement, agreed to work to enhance the skills of all its employees, and appointed a top management team to monitor results of diversity efforts. Additionally, this employer is taking pro-active steps to recruit minorities and women through scholarships, outreach efforts, and greater visibility in the employment community.

- * **A corporation with little emphasis on diversity** is changing the corporate culture to one that values diversity. A reorganization and the arrival of a new CEO from outside the corporation, have formed the groundwork for a corporate-wide commitment to developing a diverse workforce. The company agreed to many positive steps which include improving the workforce participation of minorities and women, monitoring for nondiscrimination, and ensuring that equal employment becomes an integrated business function of the corporation.

IV. Areas Warranting Greater Attention

Several of the barriers for women and minorities cited in the initial glass ceiling report continue to exist in companies reviewed this year.

- * **A lack of consistent recruitment practices to attract a diverse pool of talent.** While entry level corporate hiring is generally well-documented, systems of recruitment and tracking generally did not exist above a certain level.
- * **A lack of opportunity to contribute and participate in corporate development experiences.** Another Business Week survey, October 1991, further found that, "In regular B-school programs -- usually paid for by the participants, not an employer -- there are plenty of women and minorities...Yet in the prestigious programs paid for by corporations that round out a manager's credentials at a key career point, usually at age 40 or 45, companies are making only a token investment in developing female and minority executives. Only about 3 percent of the 180 executives in Stanford's recent advanced-management program were women."

- * **A general lack of corporate ownership in affirming that the practice of equal employment opportunity is an organizational responsibility, not one person's.**

Beyond those barriers, other issues have surfaced which appear to hinder the hiring and advancement of minorities and women. Some women expressed concern that they were not held to the same **performance measures** as men, and believed they had to work twice as hard. Mid level female managers in one company recently audited almost uniformly mentioned that the company was "not willing to take risks on women." These women felt they had to work twice as hard to prove they were as committed as men in the workforce, and had to stay in grade longer before promotion.

In many companies, the ability to relocate continues to be a requirement to career progression and advancement to the executive suite. The Department consistently states that if **mobility** is a requirement for career advancement, then management must also offer mobility opportunities to qualified minorities and women, ought to explain to them the benefits of acceptance, and must not make career assumptions for members of these groups.

V. What Works

There are a number of creative and effective approaches which employers are adopting in an effort to provide access into middle and upper management positions for qualified minorities and women. Indeed, the Department has recognized with annual awards several companies which have developed and implemented such approaches.

Some of these approaches include:

- * Tracking Women and Minorities with Advancement Potential
- * Ensuring Access and Visibility
- * Ensuring a Bias-Free Workplace
- * Entering the Pipeline (Corporate Attention Toward)

Conclusion

We are more convinced than ever that this decade must be the decade of dialogue between employers, employees, the Federal Government and the private sector. Employers have a responsibility to ensure that there are no artificial barriers to advancement of qualified minorities and women in their workplace. The Department of Labor not only has the legal responsibility to ensure no such barriers exist, but must also provide assistance to aid in compliance. And, of course, employees must take personal responsibility for their own careers -- weighing personal and professional trade-offs.

It is only through greater understanding and heightened awareness to issues that true and lasting progress will occur. The Department of Labor continues to assist employers in identifying and eliminating barriers.

I. WORKFORCE TRENDS

Multicultural diversity ... managing diversity ... valuing diversity ... cultural awareness ... all of these phrases attempt to capture the reality that the workforce of tomorrow will be one very different from 10 years ago.

Workforce 2000, a study done by the Hudson Institute Inc., for the Department of Labor in 1987, did much to heighten awareness of the demographic trends of this decade.

A recent Towers Perrin survey of 200 corporations found that 54 percent of those responding said that management support for workforce-related programs had increased over the last two years. It noted "...the single greatest factor contributing to the increase in support is senior management's heightened awareness of workforce issues and the impact those issues have on the company's profitability and competitive position."¹

While it is encouraging to find an increased interest in diversity, the serious commitment to ensure that such diversity exists at all levels of the corporate world is not generally apparent. Progress in the advancement of qualified minorities and women into mid and senior level management positions has taken place. The success stories remain, however, the exception rather than the rule.

A Business Week survey of 400 female managers found that almost half of the respondents believe that large companies have done "somewhat better" over the last five years in hiring and promoting women executives. More than half also believe that the rate of progress has slowed down. Seventy percent of those female managers polled believe that the male-dominated corporate culture was an obstacle to their success (up from 60 percent two years ago).

¹ "Workforce 2000 Today: A Bottom-Line Concern," Towers Perrin, March, 1992.

Additionally, that survey found that one-third of the respondents thought that in 5 years the number of female senior executives at their companies will have either remained the same or have fallen.²

A recent study of career progressions of male and female managers in 20 Fortune 500 companies by researchers at Loyola University of Chicago and the Kellogg Graduate School of Management found that while these two groups of comparators were alike in almost every way, the "women with equal or better educations earn less on average than men and there are proportionately fewer women in top management positions." The study showed that female managers and professionals with similar qualifications, educational attainment, career-orientation, comparable jobs, and ability to relocate, had actually been transferred or relocated less frequently than their male colleagues (which was key to advancement), and their salaries had progressed far less rapidly over the past five years.³ According to Loyola researcher Linda K. Stroh, the "women were not only disadvantaged but discriminated against."⁴

When the president of the New York-based executive search firm of Battalio Winston International wanted to know which of America's most senior women executives were being groomed for the top rung of the corporate ladder, she decided to call a couple hundred of them to find out. A survey of senior women executives revealed the fact that "none ... believed they would be able to overcome the barriers -- both subtle and overt -- to reach the top."⁵

² "Corporate Women. Progress? Sure. But the Playing Field is Still Far From Level," Business Week, June 8, 1992.

³ "All the Right Stuff: A Comparison of Female and Male Managers' Career Progression," Stroh, Brett, and Reilly, October, 1991.

⁴ "Corporate Women," Business Week, June 8, 1992.

⁵ New York Newsday, October 20, 1991.

Other studies and articles recently released are more encouraging. In the insurance industry, "women today believe that things have definitely changed. By all accounts, they say the industry now offers genuine opportunities for women in all areas -- including the technical, actuarial and investment arenas which had typically been the domain of men."⁶

An internal Korn/Ferry study found that in 1981, five percent of its senior level placements were women; in 1991, the figure rose to 16 percent. In 1981, none of the women were placed in jobs at higher than vice president; last year, 21 percent were named senior vice president and above at major companies. "There is still a pay gap there, and women are still catching up in terms of base salary," according to Caroline W. Nahas, managing vice president and partner of Korn/Ferry International. "Though we placed women executives in consumer products firms, financial services and manufacturing, a higher percentage were in health care and non-profit organizations, and they are lower-paying industries in general," according to Nahas.⁷

⁶ Risk and Insurance, June, 1992.

⁷ The Washington Post, May 17, 1992.

Overall Trends in the Federal Contractor Community

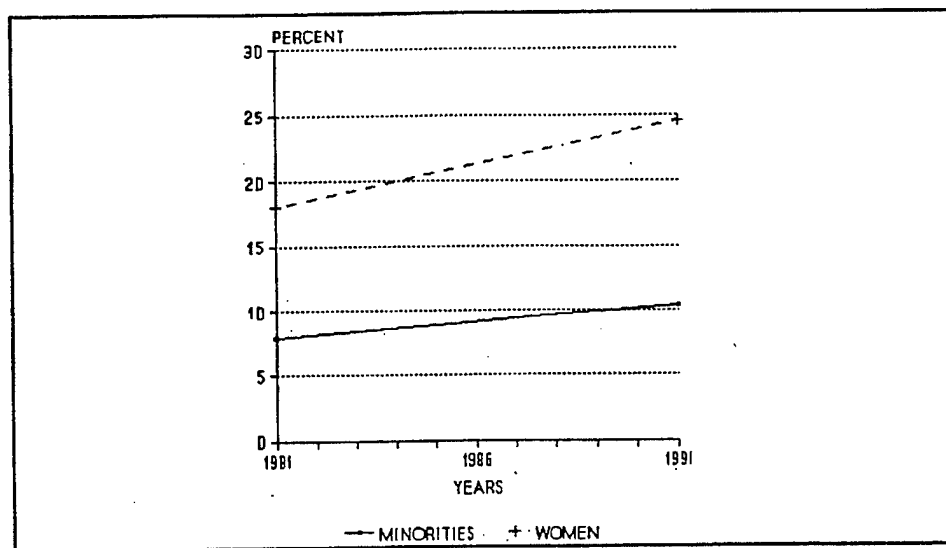
To assess participation trends, the Department's Office of Federal Contract Compliance Programs examined the "officials and managers" category in its EEO-1 database.⁸ It is important to note that the category of "officials and managers" is so broadly defined it includes the head of clerical pools and the janitorial services, as well as senior executives and chief executive officers. Additionally, since these data are only for Federal contractors' workforces, they may not always reflect changes in the labor force during similar time periods. An example is the large increase in total U.S. payroll employment -- almost 18 million between 1981 and 1991 -- and a decrease in Federal contractors' workforces during the same time period.

Comparisons among the approximately 90,000 Federal contractors reporting establishments showed that between 1981 and 1991 the total number of employees had decreased by 4.7 million. There was an increase, however, in both the number and percentage of minorities and women who are employed by these companies as officials and managers.

In 1981, there were 246,503 minority officials and managers. By 1991, this number had grown to 264,449, an increase of 7.3 percent. The proportion of officials and managers who were minorities increased slightly from 8 percent in 1981 to 10 percent in 1991. Comparable data for women showed an increase of 12 percent. The proportion of officials and managers who were women increased from 18 percent in 1981 to 25 percent in 1991.

⁸ EEO-1 data are drawn from Employer Information Reports that are submitted each year by Federal contractors with 50 or more employees and a contract for \$50,000 or more.

Percent of Officials and Managers Who Were Minorities and Women



A. Major Industries

In 1981, nearly 44 percent of all minority officials and managers were employed in retail trade, finance and real estate, and durable manufacturing. Members of minority groups comprised more than 10 percent of the officials and managers in retail trade, other services, and communications industries, and more than 13 percent of the officials and managers in the health services.

By 1991, this picture had changed slightly with nondurable manufacturing replacing retail trade as one of the top three industries. Slightly less than 43 percent of all minority officials and managers were in these top industries. This slight shift in industry concentration indicates that minority officials and managers were more dispersed throughout the other industry categories. In 1991, minorities represented more than 10 percent of the total number of officials and managers in five industrial groups. The proportion was again

highest in health services at 15 percent, followed by communications at 13 percent, retail trade at 12 percent, other services at 11 percent, and finance and real estate at 10 percent.

Several differences were found when changes in employment patterns between 1981 and 1991 for women officials and managers were analyzed. In 1981, the top three industries employing the most women as officials and managers were finance and real estate, retail trade, and communications. Nearly 53 percent of the women officials and managers were employed in these three industries. Women accounted for more than 33 percent of the officials and managers in finance and real estate, retail trade, and communications industries, and 58 percent of the officials and managers in health services.

Minority women represented 4 percent to 8 percent of the officials and managers in these industries. Women were less than 10 percent of the officials and managers in wholesale trade, transportation, machinery manufacturing and durable manufacturing, but there was no industry group where women were fewer than 5 percent of the officials and managers.

By 1991, the employment patterns of women officials and managers had also changed. Nondurable manufacturing replaced retail trade in the top three industries. The number of women who were officials and managers in the top three industries decreased slightly to 310,137, or 49 percent, of all women who were officials and managers. Since the total number of women who were officials and managers grew by 12 percent between 1981 and 1991, this decrease indicates a greater dispersion among all industry categories.

Indeed by 1991, there were no major industry categories where the participation of women was less than 10 percent in the officials and managers category. The proportion of women officials and managers was greatest in the same four industries as in 1981, growing to more than 40 percent in each, with

the proportion in health services increasing to 64 percent. The proportion of minority women in these industries ranged from a low of six percent of the officials and managers in retail sales to 10 percent in health services.

B. Large Companies

Comparisons were made between the top 100 Fortune 500 companies that were Federal contractors in 1991 and smaller Federal contractors (those with 500 to 1,000 employees). For both groups, the number and proportion of women and minorities who were officials and managers increased between 1981 and 1991. However, the proportion of women and minorities who were officials and managers was greater in the smaller establishments each year.

In 1991, for example, women were 25 percent of the officials and managers in smaller establishments compared to 18 percent in the top 100 Fortune 500 companies. Minorities were 10 percent of the officials and managers in the smaller establishments. African Americans were 5 percent of this group; Hispanics, 3 percent; Asians, 2 percent; and Native Americans, less than 1 percent. Minorities were 7 percent of the officials and managers in the top 100 Fortune 500 companies. Of this group, African Americans were 3 percent; Hispanics and Asians, 2 percent each; and Native Americans were less than 1 percent.

The percent change between 1981 and 1991 for minority officials and managers in the top 100 was 49 percent. Officials and managers in smaller establishments increased 18 percent. The changes for women were 103 percent for the top 100. With the exception of Native Americans, each group of minority women increased its number by more than 100 percent between 1981 and 1991. The change for all women for the smaller establishments was 34 percent.

II. CORPORATE MANAGEMENT (GLASS CEILING) REVIEWS

The Department of Labor's pilot reviews completed in 1991, assisted the Department in developing guidance for the conduct of future reviews. Additionally, they helped the Department identify barriers to the advancement of qualified minorities and women.

While many of the contractors in the pilot reviews signed agreements to correct deficiencies found, it was the Department's responsibility to monitor progress -- and at times revisit -- these companies to ensure that corrective actions had, in fact, taken place.

The following are results from three examples out of our pilot reviews where OFCCP undertook corporate progress reports, and follow-up visits.

A. Commitment Continues at the Top -- Despite a Change in Leadership

One company from the pilot study underwent a change in leadership in the highest ranks since the review was closed last year. Keeping in line with the company's preference for growing its own internal workforce talent, the recently appointed CEO had more than 35 years of experience with the company.

During our follow-up visit with the new leadership, the new CEO reaffirmed his company's commitment to a diverse and well-qualified workforce. He stated he was committed to ensuring that he had a well-trained and diverse workforce. He was concerned that his corporation was still not where he wanted it to be with regard to equal employment opportunity, but that they

actively were attempting to monitor internal systems to ensure that qualified minorities and women could have access to the top based on merit. Additionally, any barriers identified would be removed.

The actions of this company matched the Chief Executive Officer's words. Our follow-up visit identified numerous promotions and other positive steps toward managing a diverse workforce. Since the pilot review of over a year ago, the company has made equal employment opportunity a performance appraisal standard for senior management and has experienced progress in seeing that managers make good faith efforts to include qualified minorities and women for promotional considerations. An internal task force on the development and promotion of women met during the year and made recommendations to the senior executives of the company. Several women were promoted during the year, with one acquiring "Officer" status. The company was also more actively monitoring total compensation packages for nondiscrimination.

The corporate executives reaffirmed their commitment to ensure that minorities and women had access to line management positions, and detailed progress made in the area of equal employment opportunity, both within the U.S. and on international assignments. The corporate-wide system of transfers and placements has become an area with greater oversight to ensure nondiscrimination. Ensuring that qualified minorities and women have access to these opportunities is now a corporate management responsibility. The company's executives also committed themselves to take good faith efforts to bring qualified minorities into the feeder positions in the company.

B. Reaffirmation and Commitment to Inclusivity and Diversity

At the time of the pilot review, a Fortune 500 company was in a state of transition with regard to equal employment monitoring and accountability. The departure of its expert on EEO matters, and the organizational dynamics

caused by a change in corporate leadership, had brought to a standstill this company's systems of internal control and accountability which previously had been in place. Several years earlier, this company had implemented systems to monitor and remedy exclusionary practices. At the time of the Department's pilot review, all formal systems announcing job opportunities within the company had ceased, as well as the monitoring of hiring, development, promotion, and turnover. As a result of the review last year, the company agreed to remedy violations and problem areas identified during the audit.

During a follow-up visit by Department officials, the company shared with the Department corrective measures it undertook to meet its commitment. These included:

- Implementation of a new corporate-wide performance appraisal system which includes a specific component appraising performance in the area of equal employment opportunity, making this an integrated management concern, not just a human resource function. (At the time of the initial glass ceiling review, performance appraisals were very subjective, and the company had a policy of grooming one's own successor. Neither of these practices was being monitored.)
- Institution of corporate-wide diversity training to increase management's understanding of the importance of nondiscrimination and making good faith efforts in hiring, promotional and management development opportunities.
- Promotion or hiring of several minorities and women in mid and upper level corporate management positions.
- Implementation of a new employee opinion survey to allow employees to provide confidential feedback on areas of concern.

- Requirement by the CEO that the human resource staff take ownership to manage internal grievances, human resource planning, training and compensation, and report results directly to him.

C. Company With Rapid Growth through Acquisitions

This company was revisited by senior Departmental staff because of its rapid growth through acquisitions, and its prior difficulties in recruiting minorities and women.

As part of its competitive strategy, this company continues to operate with a lean management staff. Its workforce has been very stable over the past year, with little turnover, and employment expansion has been through the purchase of other companies and their workforces. As a result, almost a year after signing an agreement with the Department to correct problem areas, there were no notable workforce changes in the company, although the company implemented the commitments contained in the agreement with the Department.

This company has poor participation of minorities and women at all levels of management and in some professional ranks. While the company prefers an informal system of recruitment, via word-of-mouth, networking, etc., it is now well aware of its legal responsibilities not only to keep records, but also to monitor corporate practices to ensure they do not exclude qualified minorities and women.

The company continues to have programs for the development, and increased visibility of qualified high potential employees in the corporate pipelines. While there does not appear to be any immediate opportunity for management

advancement for these individuals, these programs do provide readiness support and credential-building opportunities, and are being treated in that fashion. This example is similar to many companies that are streamlining their management ranks and flattening the corporate structure.

D. One Company's Pipelines Yield Success

Another Fortune 500 company which was reviewed in the pilot study has made significant progress. A reorganization to place all of the corporation's responsibilities for equal employment opportunity under a single well-integrated human resource management structure has taken place.

After the review, the company established critical success factors which could be charted and measured, incorporating a strategic plan devoted to the achievement of workforce diversity. Among these initiatives were:

- Awarding grants to 33 high schools to support math and science courses.
- Scheduling a diversity conference involving senior management.
- Developing a strategic plan managed by the Senior Vice President for Human Resources.
- Conducting a diversity planning session which included personnel directors from each business unit. This session finalized a three-year diversity implementation plan to measure progress through 1995. With input from each business unit, six core groups were

established for planning and designing the factors to achieve the strategic thrust, and reporting results to an executive/senior management steering committee. These efforts include education of management in glass ceiling issues and regular department-head meetings within each business unit with that unit's president and his/her direct reports to measure progress.

The advancement of minorities and women can already be seen at this company. Since January 1, 1992, a number of well-qualified women have been appointed to senior management positions, two of whom are members of a minority group. In addition, a minority male was appointed to a group manager position. It is also noteworthy that the president of a major operating company is a woman, and during the fourth quarter of 1991 that same unit hired a woman as senior vice president for marketing.

III. BEYOND THE PILOT STUDIES

As part of the Department's comprehensive glass ceiling program, additional companies have been audited for glass ceiling issues, or are involved in the audit process as this report goes to print.

As in the pilot reviews, corporate management reviews differ from other reviews in the level of sophistication necessary to conduct them, the in-depth analyses of corporate policies and practices affecting senior management selection decisions, and the close oversight by senior level Departmental staff.

A. Corporation in a Non-Traditional Industry

Another company audited for glass ceiling compliance was a utility company that provides electric and natural gas service to a major U.S. city. This company historically has valued individuals working hard at the entry level, working their way up the career ladder -- from meter reader to senior executive. The workforce had been primarily male over the past 100 years. The review validated the corporation's cultural bias toward longevity and hard work---almost all of the senior executives were found to have come up through the company's ranks. The company has a very stable workforce with an extremely low turnover rate.

Over the last five years, with the emergence of a new CEO, this company has taken significant strides to develop a diverse workforce. Specifically, the CEO required that good faith efforts be taken at each of the divisions of the company, placing final accountability with the top level managers of these divisions. The accountability was then passed down to each level of management within the divisions, and did not become the responsibility of only one person or of the human resources office.

The Department's review of this public utility company found that: a) while minorities are currently employed at a level lower than females, there was no discrimination or artificial impediment to their advancement; b) while women and minorities were not well represented in the top level positions, in most instances when vacancies occurred, positive steps had been taken to identify qualified minority and female candidates; and, c) the company was not adequately monitoring all compensation programs, succession planning and promotion programs.

Problem areas were discussed and the company took appropriate corrective action. Moreover, this company took the initiative to develop a plan which would give management exposure to its minorities and women. Specifically, the company developed an Equal Opportunity Task Force to monitor selection decisions, discuss EEO concerns with managers and to attempt to resolve other issues. Executive recruitment efforts led to the hiring of women and minorities in high-level positions. The company also developed systems of mentoring, networking, and identifying minorities and women with potential and providing them with information on career paths. In addition, employees, including minorities and women, were assigned to special projects which provided visibility and promotional potential.

With the positive steps that the contractor is taking to diversify the workplace, it is expected that a pool of qualified candidates will be available for mid and upper level management positions, as vacancies occur.

B. A Large Employer With Many Management Opportunities

This employer is an established, 75-year-old company of substantial size. The company has a broad product mix, has maintained an overall progressive employment record, and has been, except for one or two periods, highly profitable.

The corporation, with several thousand managers, regularly reviews its employment practices affecting minorities and women.

The participation rate of minorities and women in the corporate office, where several hundred officials are employed, is better than many other similarly situated companies. Almost one-third are women or minorities, although most are in lower management positions. A woman currently holds a "line" (technical) vice presidency.

While female and minority representation is not uniform at all management levels, real progress is occurring. Furthermore, no disparity based on gender or minority status in salaries, benefits, evaluations, retention, or turnover has been identified.

Further, the company has a system which identifies high-potential employees at all levels and affords such persons special opportunities for task force and committee assignments, rotations, and further education.

New college graduates, after a year of employment, are evaluated for possible selection into a high-potential development program. Over 900 such employees are currently in the program, with 30 to 35 selected from the corporate office each year. Women are well represented, as are, but to a lesser extent, minorities.

For mid level managers, a less formalized program identifies high-potential employees, and keys them to career paths, identifying jobs to which they might advance as vacancies occur. Minorities and women are well represented in this program.

Finally, a high level succession plan, administered by the CEO, addresses executive positions and identifies some 100 individuals with high-potentials for top leadership roles.

As a means of monitoring the participation and treatment of minorities and women in these plans, executive level managers have applicable standards included in their annual appraisals. In addition, the CEO receives regular reports concerning the representation and status of high-potential minorities and women.

Given the formalized tracking of its high-potential employees, the non-biased evaluation and compensation system in place, and the strong commitment expressed by the CEO and other executives to equal employment and upward mobility opportunities for minorities and women, the pipeline is one which should produce increased diversity in the executive suite.

C. Corporation with Little Formality

Many Fortune 500 corporations have highly structured systems for tracking applicants, and developing key contributors, those they believe are high-potential, or those deemed promotable. Other companies still have more loosely defined systems, or no systems at all.

A recently audited company is listed as a Fortune 500 company because of its large volume of sales. Its culture is one of openness and informality. There were no formal systems for development, promotion, special assignments or projects. As with many other companies the Department audits, this company preferred to "grow its own" employees, utilizing the internal pipelines for most promotions (and the few transfers made from corporate establishments). The review validated that most employees at the highest ranks had many years with the company. "Length of service, hard work, and dedication" were the values the company rewarded.

The highest-ranked minority and the highest ranked woman were at the same reporting level to the CEO. The minority was in a traditional staff function; the woman was in a line position with input into the company's bottom line

profitability. While women tended to plateau in the lowest supervisory levels, minorities capped-out well before reaching even entry level management positions.

The majority of the company's deficiencies, for which they were cited, concerned issues of outreach and good faith efforts in hiring minorities and women into the pipelines. In fact, the company appeared to have no impediments to advancement. The problem was getting into the pipelines because the company had a relatively small pool of women and a general absence of minorities.

As a result of this audit, the company agreed to:

- Establish a top management team to monitor results of diversity efforts, monitor positions in the pipeline, monitor salary increases, bonuses and promotions, and ensure enhanced manager and supervisory EEO training and staff development.
- Enhance the skills of all employees, including minorities and women, to take advantage of the development opportunities.
- Establish three scholarship programs for: inner-city at-risk youth; a school of business scholarship; and a chemical engineering scholarship at a historically African American college or university, in an effort to become more involved with, and part of, communities that will channel a more diverse talent pool to this company.

D. New and Emerging Companies: Work on the Ground Floor

This is a high tech company in a competitive, relatively new field that enjoyed phenomenal growth since its creation. Further, it has a highly organized employee evaluation, development and reward system.

Although this company employs a large numbers of electrical engineers, many with advanced degrees, this company has difficulty finding a diverse pool of candidates for employment. It has a substantial number of professionals of Asian heritage, yet relatively few African Americans, Hispanics, or women in either management or mid level professional ranks.

While there are not large numbers of women and certain minority groups obtaining technological degrees, minorities with engineering degrees are being hired by this company at the same rate as minorities graduating from engineering schools. The company, however, has undertaken a vigorous college recruitment program, including summer internships and cooperative work-study programs. In recent years, over half of the entry level administrative vacancies filled by new college graduates with bachelors degrees were women. Of recent graduates placed in technical (scientific) positions, nearly one-fifth were women.

Up to the time of the review, only 30 to 40 percent of all entry level exempt positions were filled by new college graduates. The remainder came from employee referrals (where a bonus is given to those employees successfully referring an applicant), from networking and from recruitment firms. No discrimination was identified as a result of these latter approaches. But neither did this system contribute to expanding the participation of women and minorities. Rather, it has served to promote the status quo.

During the review, the company, realizing that its well-developed college recruitment program and summer internships brought in a cadre of qualified minorities and women, agreed to expand the number of positions offered through these vehicles.

With the pipeline opening, this contractor is ideally poised to assure the future progress of minorities and women.

What makes this company unique is the sophisticated evaluation system it has developed. This should assure that high-potential minorities and women who possess outstanding qualifications will be identified and advanced.

The company's evaluation system not only critically appraises all of its employees on a regular basis, but it also ranks them within their respective work groups, and measures their development trend in comparison with their peers. Frequent personal development appraisals allow individual employees to plan their own career growth, including opportunities available for work-related educational programs, and rotational or permanent reassignments. Identification of key employees, high potentials, and other designations rise directly from these evaluation systems.

A review of recent employee evaluations, rankings, trend patterns, retention, salaries, bonuses, stock options, turnover and retention rates showed no adverse disparity against minorities or women.

Thus, while the current participation rate of minorities and women in middle and upper management jobs is minimal, the pipelines are opening, and, more importantly, a system is in place and is being judiciously administered to assure advancement into all levels based on competence and desire.

E. Changing a Corporate Culture to One of Diversity

The Department audited a corporation located in a major urban city. Sitting comfortably in the upper third of the Fortune 500 list, this company has faced and survived (within the past five years) substantial financial, legal, and organizational challenges. Although the company survived, the resulting reorganization left the corporation with a workforce of about one-half its original size. During this period of stress and organizational upheaval, equal employment opportunity was not a primary corporate concern, or, even secondary, as our review discovered.

The new CEO, the first to be brought in from outside the organization, quickly announced concern at the current EEO profile and expressed commitment to workforce diversity and to utilize the full potential of each employee.

While this has lent encouragement to the women and minorities occupying lower and mid level management positions, it has caused some consternation among those for whom, in the past, longevity and tenure were a key component to advancement. The CEO established three priorities to ensure the success and growth of the organization: 1) Customer Satisfaction; 2) Shareholder Value, and 3) Individual Dignity -- recognizing the value of each employee which will make the company the preferred place of employment.

As it is located in a "rust belt" city with a declining industrial base, the company has contended, with certain justification, that it is difficult to attract and retain talented minorities and women, especially those unmarried and/or just graduating from college. This said, the last year or two of college recruitment efforts have resulted in an excellent group of female hires, both minority and non-minority. The company's inability to attract minority males was unexplained, and it was not possible to audit their good faith recruitment efforts due to lack of adequate recordkeeping. While the participation of minorities and women was never exceptionally high, many in the pipeline were lost over the last five years.

One of the casualties of the reorganization and restructuring was the neglect of recordkeeping and subsequent monitoring of EEO activities. This deficiency made the OFCCP audit task especially difficult. A primary result of the OFCCP compliance review was the institution of a comprehensive EEO audit and reporting system which will enable the corporate management to identify areas of EEO concern and initiate corrective action. Within the past two years the company has instituted a formalized executive development and succession planning program.

On the positive side, even prior to the OFCCP review, the company had taken some steps on its own to attract and retain high-potential minorities and women. For example, a slate of candidates produced by an executive search firm was rejected by the corporation for failing to include qualified minorities for consideration.

This company has made continuous progress under strong EEO management since the initial glass ceiling review was completed. Actual results are now being realized through increased representation of females and minorities at higher levels of the corporation -- the pipelines to the top.

By the time this review had concluded, the company had taken several additional positive steps to improve access of minorities and women into its senior level management ranks. One woman was promoted from a mid level to a senior level position. The company recruited externally and hired a minority woman for a position as a corporate vice president. Additionally, for the first time in the company's history, it promoted a woman to a plant manager position.

IV. AREAS WARRANTING GREATER ATTENTION

The Report on the Glass Ceiling Initiative cited the following as barriers to career advancement:

- A. Recruitment Practices** -- Although entry level corporate hiring is generally well-documented, consistent recruitment and tracking practices generally did not exist above a certain level. A commitment to make good faith efforts to attract a broad, diverse pool of talent from which to hire was not apparent.
- B. Lack of Opportunity to Contribute and Participate in Corporate Development Experiences** -- Often elaborate corporate systems of early identification, career development, needs assessments, and succession planning were not monitored to ensure access for qualified minorities and women.
- C. General Lack of Corporate Ownership of Equal Opportunity Principles** -- When Departmental staff discussed diversity and a commitment to take appropriate good faith measures, managers often expressed that such responsibilities were someone else's -- the human resources division's, or the EEO Director -- but not their's.

These barriers continued to be evident in additional reviews performed by the Department. Corporate hiring practices -- whether informal word-of-mouth referrals, or employee referral systems that do not look to a diverse pool of applicants -- continued to be cited as violations of the Department's mandates of good faith efforts in hiring, and were remedied by the companies reviewed.

It warrants noting that during compliance audits, the Department continues to find areas of the corporate workforce, or complete industries, that do not have a diverse workforce. This may be due, in part, to the relatively small number of minorities and women with the necessary educational attainments -- receiving degrees (both bachelors and advanced) in math and the sciences for example. Specifically, according to a report by the American Association of University Women Educational Foundation, "girls who are highly competent in math and science are much less likely to pursue scientific or technological careers than their class mates."⁹ There has also been a marked drop (11.1%) in the number of women receiving bachelors degrees in engineering over the past five years. There has, however, been an increase in the number of African Americans receiving such degrees (9.0%), and an even greater increase in the number of Native American Indians (13.2%), Hispanics (19.6%), and Asians (30.6%).¹⁰

The inclusion of qualified minorities and women in all corporate developmental systems and practices continues to be an area of close scrutiny by the Department. Executive development, developmental experiences paid for by corporate America, does not appear to be provided as often to minorities and women.

A Business Week survey of October 1991, found that corporate America invests billions of dollars in executive-education programs as an important step in "fast track" managers' development. For minorities and women, this survey, nonetheless, presents a mixed set of findings. Perhaps Business Week said it

⁹ The American Association of University Women Educational Foundation Report, "How Schools Shortchange Girls," 1992.

¹⁰ Engineering Manpower Commission, 1992.

best:' "In regular B-school programs -- usually paid for by the participant, not an employer -- there are plenty of women and minorities. ... Yet in the prestigious programs paid for by corporations that round out a manager's credentials at a key career point, usually at age 40 or 45, companies are making only a token investment in developing female and minority executives. A case in point: Only about 3 percent of the 180 executives in Stanford's recent advanced-management program were women. ...There is only one real explanation, and it is a damning one: Many big corporations simply aren't committed to helping women and minorities to the executive suite."¹¹

Ensuring that corporate practices involving management development, credential-building experiences, and special assignments be carried out in a nondiscriminatory manner is an important responsibility of the Department's corporate audit program.

While these practices can become barriers and will continue to be closely monitored, other issues have surfaced that warrant inclusion in this report. Such issues may pose barriers to some individuals and in some companies.

1. **Performance Measures:** Many women expressed concern to representatives of the Department that they were not held to the same performance measures as men and believed they had to work twice as hard. Mid level female managers in one company recently audited almost uniformly mentioned that the company was "not willing to take risks on women." These women felt they had to work twice as hard to prove they were as committed as men in the workforce, and had to stay in grade longer before promotion. In companies with informal appraisal systems, monitoring to ensure that minorities and women are being held to the same performance measures is even more difficult.

¹¹ Business Week, October 28, 1991.

** "Men seem to be promoted on their potential. Women get promoted on their performance, and it takes longer."¹²

2. **Mobility:** In many companies, the ability to relocate continues to be a requirement to career progression and advancement to the executive suite. This continues to be an area mentioned in focus groups, conferences and employer meetings. The Department consistently states that if mobility is a requirement for career advancement, management must offer such positions to qualified minorities and women, explain to them the benefits of acceptance, and must not make assumptions for members of these groups.

During the past year, the Department has met with individuals whose employers have done just that. An example is a female MBA graduate who was counselled by corporate management that the best career choice for her would be to accept a position with that company in a rural setting with the company's largest workforce population. She accepted the position because of the positive career implications -- the company explained that within a certain time frame she would be relocated to another establishment at a higher level.

¹² New York Newsday, October 20, 1991.

V. WHAT WORKS

Beyond the issues discussed earlier, there are a number of creative and effective approaches which employers are adopting in an effort to provide advancement opportunities for minorities and women into middle and upper management.

A. Tracking Women and Minorities with Advancement Potential.

As more and more women and minorities fill entry level management positions, identifying those with high potential and tracking their progress is key to a successful effort to break the glass ceiling. Southern Bell of Georgia, for instance, received the Department's Exemplary Voluntary Effort (EVE) award last year for the company's High Potential Development Program, which has, since its inception, included minorities and women. The company has taken great care to assure that high potential individuals are not overlooked when promotional opportunities occur. A similar award was received by Tenneco, Inc. of Houston, TX, for its Integrated Leadership Initiatives program, which is designed to enhance the participation of minorities and women in corporate management positions. Several companies have made their human resources departments responsible for tracking high potential minorities and women, and reporting their status directly to the Chief Executive Officer. By thus "empowering" the human resource departments, historic functional or organizational bias within operating units is checked.

B. Ensuring Access and Visibility.

Employers have long recognized that new managers require developmental opportunities if they are to succeed. Many companies have described their efforts to assure such opportunities are equally available to qualified minorities and women. An award was presented to the Anheuser-Busch Company of St. Louis, MO, last year for its management development programs. One involves

wholesaler practices where individuals progress from positions as inventory analysts, to coordinators, to plant inventory management supervisors. The other program is in a small-scale brewery. This management development plan, designed to accomplish research in brewing and also serve as a training ground, leads to positions as brewing supervisors or supervisory trainees. Other companies have developed carefully managed programs to identify educational or experience needs among its lower level managers, and afford opportunities for development in both areas. Such companies have carefully monitored their educational grants, rotational assignments, task force and committee opportunities and other developmental programs to assure minorities and women are treated with absolute equality.

C. Ensuring a Bias-Free Workplace.

Many companies have recognized the need to assure that any behavioral biases which may exist against women or minority not be practiced in the workplace. First, a large number of employers have been energetic in their efforts to eliminate such prejudice through clearly communicated corporate policy statements, diversity training, and swift discipline against those employees who violate company rules. Tenneco, for instance, has adopted a vigorous women's and multi-cultural advisory council, and a company-wide awareness program on workforce diversity. Other companies have undertaken employee surveys to better identify workplace attitudes that may be impeding advancement of minority group members or women. Smaller companies can also do their part. Jones Plastics and Engineering Corporation of Jeffersontown, KY, has undertaken manager and supervisor training, including situational approaches and role playing to increase sensitivity to work and family issues and policies.

D. Entering the Pipeline.

Although this report primarily addresses issues involving advancement into mid and upper level management, no long-term progress will be made in this area without continued efforts to improve placement of minorities and women into entry level professional positions. The Department's experiences find this particularly true for those companies that hire a large proportion of professionals requiring technical and scientific degrees. The efforts undertaken by many companies in this regard are also encouraging. Consolidated Diesel Company, of Whitakers, NC, for instance, received recognition for its leadership, support and financial resources to better prepare students for the work place, striving to improve educational excellence in their community. The Jet Propulsion Laboratory, of Pasadena, CA, was similarly recognized for its program of research grants, scholarships, fellowships, summer employment and collaborative research projects through historically African American colleges and universities, two universities with a high enrollment of Hispanics, and for a unique Native American initiative. The Native American effort supports students studying science and engineering, and places a special emphasis on family involvement, and community and tribal leadership in supporting and motivating the students. At Johns Hopkins University's Applied Physics Laboratory in Laurel, MD, the employer has spearheaded a consortium that enabled more than 700 students to receive engineering master's degrees.

CONCLUSION

As we prepare for the 21st century we must develop a well-trained, skilled, professional and productive workforce that will be globally competitive. This must be done with a workforce that is inclusive and supports diversity ... where human talent is not excluded for any reason as unrelated to ability as sex, race, religion, national origin, disability, or veteran status.

The release of the Department of Labor's Report on the Glass Ceiling Initiative (August, 1991), not only established a benchmark for measuring progress, but also stimulated much action toward discussing and identifying artificial barriers to advancement (glass ceilings). As a result of our concerted efforts over the last two years, we are more convinced than ever that each and every one of us has an important role to play in this issue.

- All employers have an economic, demographic, social, and moral responsibility to ensure that no artificial barriers to advancement of qualified minorities and women exist in their companies.
- As the only agency that can pro-actively audit companies for compliance (outside the filing of formal complaints), the Department of Labor has the legal responsibility to ensure that no such barriers exist. The Department has committed itself and many of its resources to cooperative compliance and technical assistance outside the formal audit setting.
- Employees too must take personal responsibilities for their own career progress. Oftentimes workplace advancement means relocating to less than ideal localities; working long hours; taking career risks; volunteering for additional assignments; or simply moving to another division -- all factors that employees must weigh, and about which they must make personal and professional decisions.

The Department stands ready to assist employers -- no matter how large or small -- in identifying and eliminating barriers to the advancement of qualified individuals in their workplace, and to assist in educating employees of their personal responsibilities as well. And, we will fully, firmly, and fairly enforce the laws we have been entrusted to enforce.

In 1935 Margaret Mead wrote, "If we are to achieve a richer culture, rich in contrasting values, we must recognize the whole gamut of human potentialities." It is our hope that "Pipelines of Progress" serves as another tool to reach that higher plane.

Rose Kemp included, as part of her testimony to the Defense Conversion Commission, the following materials available from the U.S. Department of Labor, Women's Bureau National Office, 200 Constitution Avenue, N. W., Room S3002, Washington, D.C. 20210, Regional Offices, or the DCC.

Bureau of Labor Statistics Report 823, "Employment in Perspective: Women in the Labor Force," First Quarter 1992.

Department of Labor, "Pipelines of Progress, A Status Report on the Glass Ceiling," August 1992, ISBN 0-16-038019-7.

Department of Labor, Secretary's Commission on Achieving Necessary Skills (SCANS) reports:

- "What Work Requires of Schools"

- "What Work Requires of Schools/Executive Summary"

- "Learning a Living: A Blueprint for High Performance/Executive Summary"

Department of Labor, Women's Bureau publications:

- "The Women's Bureau: What It Is, What It Does," 1991

- "A Report on the Glass Ceiling Initiative," 1991, ISBN 0-16-036141-9

Facts on Working Women bulletins, including:

- "20 Facts on Women Workers," No. 90-2, September 1990

- "Earnings Differences Between Women and Men," No. 90-3, October 1990

- "Women in the Skilled Trades and in Other Manual Occupations," No. 90-5, January 1991

- "Women Workers: Outlook to 2005," No. 92-1, January 1992

- "Women with Work Disabilities," No. 92.2, March 1992

Secretary's Initiative to Support Women And Minorities In The Skilled Trades, July 1992.

Preventing Sexual Harassment in the Workplace

The following pamphlet is available from the State of Missouri Department of Labor and Industrial Relations, Division of Employment Security, or the DCC.

- "Planning Your Job Search"

TESTIMONY PREPARED FOR
THE SECRETARY OF DEFENSE'S
CONVERSION COMMISSION

Presented By

MRS. RUTH MARGOLIN

Director, Women's Center

University of Missouri-Kansas City

I want to thank the Commission for the opportunity to testify in these public hearings. For the past 25 years, I have worked professionally with women and men in their career development, employment advancement and continuing education. I believe there are approaches to meeting some of the unemployment problems accompanying the peace dividend.

In 1986, the Hudson Institute was commissioned by the then Secretary of Labor, William Brock, to study what the labor market would require of its workforce for America to remain productive and competitive. The report's chilling evidence pointed out that we were not developing or retraining a workforce to meet this society's emerging demands. Today this still remains a critical concern. Due to their training and work background, military and defense workers possess the basic skills and good work habits that are the necessary foundation for Workforce 2000. Our challenge, as a society, is to develop a creative program to tap

the existing skills and experience of military and defense workers while assisting them in gaining new or additional skills to remain economically self-sufficient.

A carefully crafted program of "earn-and-learn," particularly addressing the needs of women, is what I would like to explore in my remaining time.

There are staffing shortages in critical areas in our society, such as health care, education, and protective services. I propose that this new corps of workers have essential competencies and work habits previously developed during their training and military careers. These competencies and work habits can be used to provide support services before and after school and in the classrooms; in the hospitals and community clinics; and in neighborhoods. In return for these services, participants will receive training necessary to prepare them to earn a living in a changed economy.

Women in the military and defense industries are frequently single heads of households. Additionally, their work has been conducted in what are still non-traditional work roles for women. Such community service exposure can carry two benefits:

- 1) women veterans and defense workers can provide positive role models for youth; and
- 2) women veterans and defense workers can readjust to a changed work life with a safe, supportive environment.

Such a program would require appropriate career and psychological counseling based on local or regional community service needs and employment trends and including interpretation

of existing benefits, particularly for women veterans who, for a variety of reasons, do not access these benefits. I want to emphasize the need to pay attention to regional cultural differences and attitudes. Such a program might well be anchored in a community-business-government alliance. In some communities the program might well be an extension of existing successful programs. Also, it is my understanding that \$150 million dollars of the Department of Defense funds have been reallocated to the U. S. Department of Labor to be used specifically for defense downsizing services. I encourage you to examine how some of these funds could be used to assist the "earn-and-learn" concept.

The UMKC Women's Center received a grant from the Region VII Women's Bureau to carry out a project entitled, "Women Veterans Project." The purpose of this project was to learn about the experiences of women veterans in relationship to their needs, the awareness of and the use of veterans' benefits and services, and identify need areas for potential services. One of the methods chosen to gather information for this project was the utilization of focus groups.

The project concluded, in part, that many of the women veterans were unaware of various benefits and personnel available to them. A statement heard in each focus group was that women veterans have so few opportunities to get together to share experiences and feelings; in fact, one respondent said she was so highly discouraged from joining her local VFW chapter, she drove across town to attend meeting at another chapter.

Based on my experience and the findings of our women veterans project funded by the Women's Bureau, I believe that a "GI Bill for Community Services" would be a significant step towards gainful employment and positive assimilation of women veterans and women defense production workers into a changing and global economy.

Thank you again for your time and attention. I will be happy to answer any questions.

BIOGRAPHICAL SKETCH

NAME : Gerald S. Ide
AGE : 49
DOB : 3-1-43 St. Louis , Missouri
SCHOOL: St. Louis Public School Sys.
WORK : McDonnell Douglas Corp. 25 years
CLASSIFICATION : Crater and Packer Grade 1

Other interest and actives at work:

Union Shop Steward

Vice-President Local Lodge

District Delegate to District 837 , I.A.M.A.W.

Chairman Local Lodge Legislative Committee

Delegate to the Missouri State Council of Machinist

Appendix H

Outline of testimony for the Department of Defense, Defense Conversion Commission

Gerald S. Ide
August 20, 1992
St. Louis, Missouri

1. Frank Brown

- A. Age 34 years old
- B. Worked as a Operator- (Fabrication) for McDonnell Douglas for the past 4 years
- C. Only income is the unemployment benefit he receives from the State of Missouri
- D. Forced to live at home with his parents, and feel's very grateful that his parents are still able to give him their support.
- E. Has no life insurance of his own, his Auto insurances will soon expire, his Health insurance cost is \$175.00 wk. under the cobra plan.
- F. Frank's unemployment benefit from the state are \$ 145.00 week. The only reason that Frank is able to keep his head above water is his savings and the support of loving parents.
- G. Discussion.....

Outline of testimony for the Department of Defense,
Defense Conversion Commission

Gerald S. Ide
August 20, 1992
St. Louis, Missouri

2. John Pratt

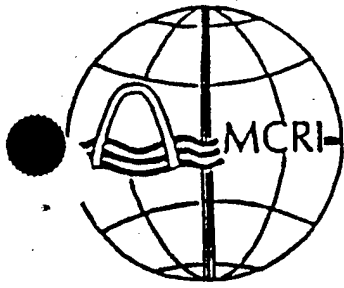
- A. Age 33, married, father with 4 children
wife's age 30, kid's ages are 7, 6, 4 & 2
years old.
- B. Came to work at McDonnell Douglas in July,
1988 as a Mechanic- (flight) . As the
production levels fell off he found it
necessary to transfer to a lower paying
classification. (SHEET METAL ASSEMBLER &
RIVETER). John was on lay off from the
S.M.A.R. classification for 6 months.
- C. John found another job after looking for
1 1/2 months, but it was in Tulsa Ok.
working for American Air Lines. He worked
for American for 4 1/2 months when
McDonnell Douglas called him back to
St. Louis.
- D. John spent 8 years learning his craft in
the United States Navy. Meeting all of
the requirements of the government, John
brought those skills to McDonnell
Douglas's team
- E. Discussion

Outline of testimony for the Department of Defense,
Defense Conversion Commission

Gerald S. Ide
August 20, 1992
St. Louis, Missouri

3. Debbie Atkins

- A. Age 33 years old
- B. Worked as a labor for McDonnell Douglas Maintenance Department for 6 years.
- C. Only income is \$ 100.00 a month she receives for child support for one of her two children. Both children are under school age.
- D. Debbie shares an apartment with a girl-friend who helps out with most of the expenses. Debbie has been on layoff since Jan. 1991. Her last job lasted for 17 day's .
- E. Ms. Atkins has no insurance what so ever. none on herself are her children. She drives without Auto insurance. Debbie estimate her expenses to be around \$ 500.00 per month, \$ 500.00 she doesn't have.
- F. Discussion..... include health



MIDWEST COALITION FOR
RESPONSIBLE INVESTMENT
3753 West Pine Blvd.
St. Louis, MO 63108
(314) 531-9881

STATEMENT FOR THE DEFENSE CONVERSION COMMISSION
AUGUST 20, 1992
ST. LOUIS, MISSOURI

I am Sister Susan Jordan, the coordinator of the Midwest Coalition for Responsible Investment, a coalition of church-related groups in greater St. Louis and surrounding areas. Members of our coalition as shareholders use the strategy of addressing corporations about many issues which we believe are critical in our society.

Since at least 1977, 15 years ago, representatives of these church-related groups from the St. Louis area have been writing letters, asking for meetings, submitting shareholder proposals, speaking at annual meetings in order to contact Mc Donnell Douglas and other military-production related companies about their weapons making and the need for economic conversion. Most of these efforts have been by means of shareholder proposals, usually with a minimal number of shares since groups did not want to make profits from military-related production. During these years, our most urgent requests to McDonnell Douglas and other companies have been to ask the companies to make plans for alternative production, not just diversification, but real and well-planned alternative production, including serious job retraining, plant retooling, and identification of new product lines after assessing larger community needs. The purpose was to avert layoffs and economic disruption when military production lines ended. Unfortunately, significant alternative production planning did not happen, and our metropolitan area, as well as other areas of the country, have seen and continue to see massive layoffs, plant shut-downs, reorganizations which help the company bottom line but not the workers laid off, and other dire consequences as these decisions have their many effects on families and the larger community.

Our experience has been that our message fell on deaf ears for the most part. And now, faced with the situation that fewer and fewer military-related dollars are available from the United States government, we see some companies engaging in very active campaigns to sell military products in foreign arenas. We find McDonnell Douglas, for example, continuing to lobby for the sale of the F-15s to Saudi Arabia. Because of years of dependence on military production, corporations do have difficulty converting to non-military products. That dependence and companies' refusal to put adequate financial resources and human effort into research and feasibility studies are hampering serious efforts at the

creation of alternative or non-military products. The civilian sector so robbed of scientists and engineers and research and development funding by military production for so long, needs the scientists and engineers skills and the research and development funding so the United States can compete with other industrialized nations and have productive jobs.

If, indeed, the United States is ever to be part of a really new world order, weapons producers such as McDonnell Douglas will have to be willing to step away from their status quo and their current mind-set. They will have to look seriously with unprecedented creativity and appropriate human and financial resources for alternative products that will help all people.

There continues to be evidence that it is very difficult for companies to take the initiative on their own to do some kind of alternative production planning in the scope that would be necessary for success. We believe that these companies need the benefit of well-considered real government commitment and assistance for this planning to take place and to succeed. We urge this committee to recommend that.

I hope corporations that now depend heavily on military weapons production can break out of this dependency and move into a future where a company's products will not only provide jobs on all levels, but will also promote the well-being of all. I hope there will be more community economic development funding, job training and small-business funding. I hope the report of this committee will insure that companies are urged by the government that helped make them so dependent on military production to do alternative production planning and that they are assisted in doing so by that same government.

Susan Jordan

Susan Jordan, SSND
Coordinator, Midwest Coalition for
Responsible Investment

Remarks of Fredric Raines before the Defense Conversion Commission

August 20, 1992

I welcome this opportunity to testify before the Defense Conversion Commission on the important topic before us. Reductions in defense spending made possible by the end of the cold war present both a challenge and an opportunity for defense intensive communities such as St. Louis, and for our overall economy.

My academic interest in the economic effects of defense spending is an outgrowth of my background in labor economics, and in U.S. economic growth, productivity and technical change. And like others you have heard today, I am hopeful that St. Louis will address the challenges of defense cutbacks in a constructive, community-wide effort that will lead to renewed growth and opportunity for the region.

In the limited time I have I would like to focus principally on some research that professor Laurence Meyer and I have been engaged in on the role of defense spending for economic growth and the economy's technological base. This on-going research is reflected in the paper that I have distributed to the commission. After summarizing some conclusions based on this work-the scope of which is the overall economy-I will attempt to draw some conclusions for the St. Louis regional economy. In doing so I am guided in part by a survey-based model of the St. Louis defense economy developed by professor Carol Evans and myself.

The paper distributed addresses the economic effects of defense spending from two distinct but related perspectives. The first approach is to simulate the longer-run effects on economic growth of reductions in defense spending by means of a large scale macroeconomic model of the U.S. economy.

The second approach is to estimate productivity equations for the total private economy that include as arguments defense R&D as well as productivity enhancing factors that may be influenced by defense spending, such as non-defense R&D and public investment.

Turning to the first approach, WUMM, a 350 equation forecasting and policy analysis model developed by L. H. Meyer & Associates, is used to simulate the long run effects on productive capacity and GDP of a reduced defense spending path relative to the base case. The base case assumes defense spending fixed in real terms at the 1991 level through 1997, and a constant share of GDP thereafter. The simulated case amounts to spending reductions cumulating to 28% of the base figure by 1997, and a constant share of GDP thereafter. These cases correspond to alternative paths given in a Feb. 1992 CBO study.

Emphasis is on the supply effects, not the short-run demand impacts. This is accomplished by assuming an accommodating monetary policy that stimulates the economy so that aggregate demand is maintained.

The net result is that the defense reductions relative to the base case lead to a modest increase in GDP, amounting to 0.6% by the year 2001. By that year, plant and equipment investment is about 20% higher, and the capital stock is 2 1/4% greater. Growth in the private nonfarm economy is larger (1.3% over the base case), due to the military to civilian employment shift of 600,000 workers. The basic mechanism leading to these results is that reduced defense spending makes feasible lower interest rates, hence higher levels of investment. The various countervailing forces are discussed in the paper.

The WUMM model treats technical change, hence shifts in the production function and productivity equations for the economy, as exogenous.

The second approach taken in this paper attempts to remedy this omission. There are several channels, by which defense expenditures might have a potentially significant role influencing technology and productivity:

1. directly, through spillovers of defense R&D on civilian technology and productivity in the private sector;
2. indirectly, through the crowding-out of federal non-defense and civilian R&D;
3. indirectly, through the fact that reductions in defense spending release funds that can be used for productivity-enhancing investments, such as education, worker training, and infrastructure investment; conversely for increases in defense.

We have made an initial investigation of these hypotheses by statistically estimating equations for labor productivity and multi-factor productivity for the private nonfarm economy. The paramount fact about U.S. productivity growth is that it has substantially declined over the past two decades in a fashion that defies easy explanation. Can defense R&D and defense spending provide any insights? To explore all this, we used as explanatory variables the "technology" stocks of defense, nondefense and civilian R&D, subdivided into their basic research and applied research and development components. In addition to the stock of private capital, we introduced the stock of public, non-military capital.

Details concerning data sources, construction of variables and econometric results are given in the paper. For present purposes, I wish to emphasize the following points.

1. Basic defense research and basic civilian research *both* significantly contribute to productivity growth in the private nonfarm economy. Their respective contributions in terms of elasticities appear to be equal.

2. *Unlike* civilian applied R&D, defense applied R&D appears to have no significant impact on productivity growth in the private sector.

3. The importance of 1. and 2. for productivity growth in the private economy is seen in the fact that basic defense research is less than 3% of total military R&D, or about \$1 billion compared to upwards of \$40 billion spent on applied R&D in recent years.

4. Federal non-defense basic research appears to contribute to private productivity growth. However, non-defense applied R&D proves to be insignificant. This may be a "quality of life" phenomenon.

5. The public capital stock -the infrastructure variable- turns out to be highly significant for both labor and multi-factor productivity growth. Its impact (elasticity) is about half that of private capital.

The overall conclusion that I draw from this part of the study is that defense spending reductions channelled into civilian R&D and infrastructure investment represent a tangible source of productivity growth that should not be overlooked. Most particularly, the conversion of applied defense R&D into civilian R&D should be vigorously pursued. During the 1980's, much if not most of applied defense R&D went into strategic weapons systems that are no longer needed. The feasibility of transferring R&D resources from the military to the civilian economy is suggested by the significant contribution of basic defense research to productivity growth in the private sector.

How does the above tie into the St. Louis picture? Defense cutbacks in the area, and at McDonnell Douglas in particular, have already resulted in the elimination of thousands of defense jobs. For the most part, these have been highly skilled blue collar and white collar workers. They represent a rich human resource pool available for new and expanding industries and products. The study done by Carol Evans and myself referred to earlier projected direct and indirect job losses of some 25,000 workers in the St. Louis area due to reductions in defense spending between 1989 and 1994. This scenario assumed defense cutbacks that averaged about 15% across industries over this period. We are currently revising this study to reflect newer, more detailed DoD defense spending estimates, but the clear implication is that total job losses due to defense cutbacks will ultimately far exceed 25,000.

However the implication to be drawn is not that we should dig in and attempt to resist otherwise justified defense cuts in order to "protect" these jobs. Defense spending cannot and should not be justified as a public employment program. More to the point, this approach is not needed.

The evidence from the macro model is that, with appropriate macro policies, reduced defense spending will actually stimulate economic growth. Moreover, this stimulus will be enhanced to the extent that productivity growth in the private sector benefits from higher civilian R&D and infrastructure investment.

A survey of St. Louis defense contractor adjustment strategies conducted Dec.-Jan. 1990-91 suggests that these macro findings will strike a responsive chord in the local economy. By substantial margins, surveyed contractors looked to expanding existing commercial

markets, or developing new commercial markets, rather than downsizing, as a means of adjusting to defense cutbacks. These firms also indicated that they would be confronted with a wide variety of problems, from marketing and export information, to finance, to the need to retrain or obtain skilled labor. The specifics are diverse and individualized.

Thus what appears to be needed to facilitate the defense transition in the area is a set of locally developed and operated conversion programs, responsive to a great variety of needs as they arise. This flexibility requires local control and planning. But it probably cannot be accomplished without federal assistance in financing and resources.

**Table 1: Output and Employment Multipliers for Nine St. Louis Area
Defense-Related Industries**

Industry:	Overall Multipliers		
	Output		Employment
	(Excluding Induced Effects)	(Including Induced Effects)	
	dollars per dollar of final sales	dollar	number per \$1 million of final sales
Aircraft	2.01	2.64	22.6
Aircraft and Missile Engines	2.02	2.67	23.4
Aircraft and Missile Equipt. nec	2.11	2.85	26.2
Guided Missiles and Space Vehicles	1.85	2.44	21.0
Semiconductors	2.05	2.71	27.6
Other Electronic Components	2.11	2.75	26.7
Ammunition, except small arms	2.19	2.98	31.2
Small Arms Ammunition	2.21	2.88	26.7
Other Ordnance	2.12	3.00	34.7

Source: computed from Dept. of Commerce RIMS II model tabulation.

Table 2: Occupational Employment in Three Defense-Dependent Industries and Motor Vehicles

Occupation	Aircraft and Parts		Electrical Machinery		Ordnance		Motor Vehicles	
	<u>1978</u>	<u>1990¹</u>	<u>1978</u>	<u>1990¹</u>	<u>1978</u>	<u>1990¹</u>	<u>1978</u>	<u>1990¹</u>
	(percent of total industry employment)							
Professional & Technical	27.1	27.3	17.4	16.3	26.6	24.8	8.2	7.5
Managers & Administrative	6.9	6.8	6.2	6.3	6.3	5.1	3.7	3.9
Clerical Workers	14.7	10.7	13.8	13.5	15.5	15.1	10.0	8.9
Crafts Workers	24.4	29.7	12.8	12.3	16.7	17.4	19.6	21.1
Operatives	24.1	23.4	44.8	46.8	28.3	30.7	51.0	52.6
Service Workers & Laborers	2.4	1.3	4.0	4.3	6.5	6.8	6.7	4.9

Source: Based on *The National Industry-Occupation Employment Matrix*, Vol. 1
Bureau of Labor Statistics, Bulletin 2886, July 1981

¹ Projected by BLS

TABLE 4

Distribution of Output Losses from DoD Projected Defense Cutbacks
St. Louis SMSA
(millions of 1989 Dollars)

Output	Projected Output Loss ¹			
	(1)	(2)	(3)	(4)
Industry	1989	1989-91	1989-94	1989-94
Manufacturing	6521	373	241	891
Chemicals	306	17	11	39
Primary/Fabricated Metals	801	56	41	131
Machinery & Electrical Equipment	227	13	8	162
Motor Vehicles	116	7	4	16
Transportation ex. Motor Vehicles	4566	355	160	611
Utilities	721	38	24	90
Wholesale & Retail Trade	793	43	28	102
Finance, Insurance & Real Estate	780	44	28	105
Services	1148	63	40	151
Household Sector	3483	196	125	468
Total	10,137	570	367	1362
Adjusted Total, all Industries ²	13,137	739	476	1765
Total, incl. Household	13,621	766	492	1830
Adjusted Total, incl. Household	17652	993	638	2371

¹See footnote 1, Table 3.

²See footnote 2, Table 3.

Table 5

***Distribution of Employment Losses from DoD projected Defense Cutbacks
St. Louis SMSA***

Occupation	Employment	Projected Employment Losses¹			
		(1)	(2)	(3)	(4)
	1989	1989-91	1989-94	1989-94	1989-94
Engineers	11,249	630	39	1509	1743
Other Professional	12,065	617	31	1594	1885
Managers	12,779	713	40	1703	2004
Sales and Clerical Workers	26,167	1456	103	3479	4106
Crafts Workers	22,075	1251	82	2989	3461
Operatives	22,475	1291	83	3080	3561
Service Workers and Laborers	17,783	993	41	2373	2791
Total	124,593	6951	419	16,727	19,551
Adjusted Total ²	161,473	9009	543	21,678	25,338

¹Simulations Basis:

- (1) DoD procurement projections in six leading industries, 1989-91.
- (2) DoD procurement projections in six leading industries, 1989-94.
- (3) 1989-91 DoD procurement projections by industry extrapolated to 1994, (applying the average DoD procurement change to non-key industries).
- (4) Simulation (3) extended to all St. Louis area defense contractors in the sample.

²Benchmarked to total DoD contracts in the St. Louis SMSA.

Table VI: CURRENT DEFENSE CONTRACTOR ADJUSTMENT STRATEGIES

Sector	Downsize	Expand Domestic Commercial Markets	Develop New Commercial Markets	Expand Commerical Export Markets	Develop New Defense Markets
Engin. & Man. Serives (2)	1	2 ¹	2 ²	1 ³	1
Wholesale (5)	1	2 ¹	3 ²	1	3 ³
Construction (1)		1 ¹			1 ²
Aircraft (6)	1	5 ¹	6 ²	3 ³	4
Automotive (3)		2 ¹	1 ²		2 ³
Missiles (3)	3		3 ³	2 ²	2 ¹
Instruments (5)	4 ³	5 ¹	5 ²	2	2
Electronics (6)	3 ²	5 ¹	3 ³	1	2
Ind. & Comm. Machinery (10)	4	8 ¹	8 ²	4 ³	2
Munitions (2)	2 ²	1 ³	2 ¹		
Fabr. Metal Products (5)	2 ¹	4 ³	5 ²	1	
Rubber & Sealants (2)	1	2 ¹	1 ²		1 ³
Lumber (1)		1 ²	1 ¹		
Totals: (51)	22	38	39	15	20

Note that superscript notation indicates the overall priority rank that firms attributed to pursuing that strategy.

TABLE VII: CURRENT DEFENSE CONTRACTOR ADJUSTMENT PROBLEMS

Response Frequency by Sector

Sector	Retrain	Skilled Labor	Management	Retool	Finance	Technical Information	Marketing Information	Export Info.
Engin. & Man. Services							1 ¹	1 ²
Wholesale		1			1 ³		2 ¹	2 ²
Aircraft	2	1	1	2	1	2 ³	2 ¹	2 ²
Automotive		1 ²	1 ¹		1 ³			
Missiles	2	2 ³	1	2 ²	1		2 ¹	1
Instruments	4 ³	5 ¹	3	3	3	3 ³	5 ¹	3 ²
Electronics & Electrical	1				2 ²	1	3 ¹	1 ³
Ind. & Com. Machinery	2 ³	2	2	1	2	2	3 ²	5 ¹
Munitions	1 ¹	1		1 ³	1 ²		1	
Fabr. Metal Products			1 ³	1		1 ²	1 ¹	1
Rubber & Sealants					1 ³	1 ¹	1 ²	
Lumber					1 ³		1 ¹	1 ²
Total	9	10	9	10	14	10	22	17

Does Defense Spending Crowd Out Economic Growth?

Laurence H. Meyer and Fredric Q. Raines

Washington University, St. Louis

Paper presented at the Western Economic Association International Conference
July 12, 1992

Does Defense Spending Crowd Out Economic Growth?

Laurence H. Meyer and Fredric Q. Raines

Washington University, St. Louis

Introduction

In the *Rise and Fall of Great Powers*,¹ Paul Kennedy concludes that excessive military spending often leads to economic decline. The failure of Reaganomics to spur economic growth despite implementation of much of its supply-side agenda and the slower growth of both the Soviet and U.S. economies in the last two decades relative to Japan and Germany have provided more recent historical episodes that reinforce the concern raised by Kennedy in the context of a more sweeping historical analysis.

The relation between national economic wellbeing and resources absorbed in the military sector has also been widely debated among economists. On the one hand, analysts such as Seymour Melman² and Lloyd Dumas³ have long argued that massive infusion of resources into the military has weakened our technological competitiveness in civilian sectors. On the other hand, Murray Weidenbaum⁴ and some earlier studies⁵ failed to find any systematic evidence of a trade-off between defense and investment or defense R&D and civilian R&D. The debate seems joined but not resolved.

This paper develops some of the important interactions between defense purchases and macroeconomic performance, provides empirical evidence on the quantitative effects of projected declines in defense spending on the level and growth rate of productive capacity, and then investigates the contribution of defense and non-defense R&D to productivity growth.

There are several channels through which defense spending affects macroeconomic performance. First, there is a demand effect. Defense spending is a part of overall government purchases and thus affects aggregate demand and therefore the short-run level of production and employment. Second, there are a variety of supply effects, involving both spillover from defense technology to civilian technology and crowding out of private and public capital, of federal nondefense R&D, and even of civilian R&D. In this paper, we focus exclusively on the supply effects of defense spending.

We use two interrelated methodologies to develop empirical estimates of the macroeconomic effects of changes in defense purchases on aggregate supply. First, we use simulations of a large scale macro model

to investigate the effects of a projected decline in defense spending on the level of output, capital formation, and productivity growth. The model is particularly useful at analyzing the supply effect working through a change in national saving and increase in private capital formation. The macro model employed in this study, however, assumes that technical advance in the economy is exogenous. To investigate the potential spillover effects from federal defense to productivity as well as the potential damage from crowding out of non-defense and civilian R&D and of expenditures on the public infrastructure⁶ by higher defense purchases, we directly estimate the contribution of the various components of R&D and of the public capital stock to labor and multi-factor productivity and search for any causal link between federal defense purchases, spending on the public infrastructure, and non-defense R&D flows.

Simulation Analysis of a Reduction in Defense Purchases

In this section, the Washington University Macroeconometric Model of the U.S. Economy (WUMM) is used to simulate the macroeconomic effects of a projected decline in defense purchases over the coming decade.

The Base and Alternative Paths for Defense Purchases

The base case assumes that defense spending is fixed in real terms at the 1991 level in the period from 1992 through 1997 and then grows at the rate of increase in real GDP (preserving the 1997 share of defense in GDP) in the period from 1998 through 2001. This is the same base case as is employed by the Congressional Budget Office in their February 1992 study of the effects of a cut in defense spending.⁷ The point of departure for the alternative path is the Administration's Future Years Defense Program, submitted in February 1991 (hereafter referred to as "the 1991 plan"). The 1991 plan calls for a 20% cut in nominal defense purchases relative to the base by 1997 and is consistent with the spending caps incorporated in the 1990 budget agreement. The alternative path for defense purchases employed here (and corresponding to the alternative # 2 path in the CBO study) is a cut 1 1/2 times as large as the 1991 plan. After 1997, the defense spending is set to maintain its share of GDP. Table 5.1 presents the base and alternative paths for both nominal and real defense purchases.⁸ Figure 5.1 plots the share of defense in GDP from 1948 to 1991 and Figure 5.2 depicts this share in both the base and alternative simulations.

Figure 5.1

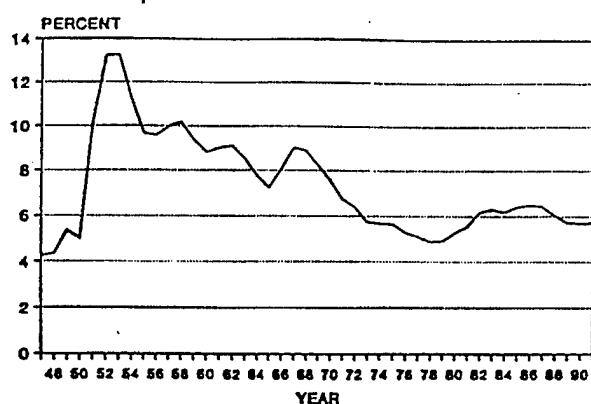
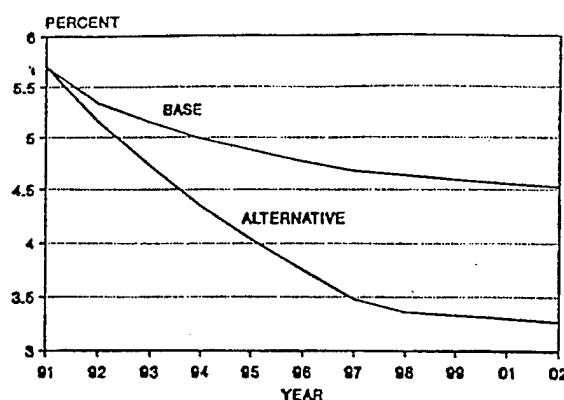
SHARE OF FEDERAL DEFENSE PURCHASES
IN GDP

Figure 5.2

SHARE OF FEDERAL DEFENSE PURCHASES
IN GDP IN THE SIMULATIONS

The Washington University Macro Model

WUMM is a 350-equation macro model developed by Laurence H. Meyer & Associates and used for forecasting and policy analysis. The model has been used extensively for analysis of fiscal policy options, including the effects of Gramm-Rudman and of the 1986 tax reform act.

The model has short-run Keynesian and long-run neoclassical properties. Specifically, output is demand determined in the short run. Therefore, declines in defense purchases which lower federal fiscal stimulus will lower aggregate demand and hence production and employment in the short run. The long-run neoclassical properties include a tendency to adjust back toward full employment in the long run. Therefore, in the long-run the effect of fiscal policy actions focuses initially on the composition rather than the level of output. However, the composition of output today, specifically the share of output devoted to business fixed investment, is an important determinant of the level of output tomorrow. Hence there will also be an important long-run effect on the level of output. In the long run, lower defense purchases allow for a transfer of resources to private investment and therefore result in an increase in the economy's level of productive capacity and hence GDP.

WUMM is able to capture the long-run effects of fiscal policy because it has a carefully articulated supply side in which the level of productive capacity in the long run is affected by labor supply and capital formation and where both input supplies in turn are affected by government policies. For the purpose

of this simulation, there are two key supply side effects. First, the decline in federal employment raises the civilian labor force and provides the resources for an increase in private sector output as government

Table 5.1 Defense Purchases in the Base and Alternative Simulations

	Nominal Values (billions, current dollars)				Real Values (billions, 1987 dollars)			
	Base	Alt	Change	%Change	Base	Alt	Change	%Change
1992	314	304	-10	-3	269	260	-9	-3
1993	320	294	-26	-8	269	265	-4	-2
1994	328	286	-42	-13	269	234	-35	-13
1995	337	279	-58	-17	270	223	-47	-17
1996	347	273	-74	-21	270	212	-58	-22
1997	359	268	-91	-25	271	201	-70	-26
1998	375	273	-102	-27	275	199	-75	-27
1999	392	285	-107	-27	279	202	-77	-27
2000	409	297	-112	-27	284	205	-78	-28
2001	428	310	-118	-28	288	209	-80	-28

output is reduced. In the simulation, the decline in federal employment is used directly to adjust upward the model's projections of the civilian labor force.

The second link is from government purchases to real interest rates to capital formation. The decline in government purchases reduces aggregate demand, puts downward pressure on prices and thereby raises the real money supply, in turn lowering real interest rates and stimulating investment and hence private capital formation. The increase in the private capital stock raises the economy's productive capacity. Over the period during which resources are being transferred between government purchases and private investment, the increase in the level of output and in the level of labor productivity will show up as an increase in the economy's intermediate-run rate of economic growth.

Technical advance and long-run growth

WUMM assumes that the rate of growth in technology is exogenous. Over the historical data, the rate of technical advance is estimated in the model as part of the estimation of the demand for labor (hours worked). A series of time trends are used to estimate the rate of technical advance over subperiods. We find, for example, that there is a decline in the rate of technical advance in 1973 and an upturn in 1981. However, there is no attempt in WUMM to explain the source of the changes in the time trend.

The assumption that the rate of technical advance is exogenous means, of course, that WUMM cannot be used to simulate the effects of changes in R&D or in the public infrastructure on the level of productive capacity. To the extent that the long-run effects of lower defense spending imply increased investment in either the public capital stock or civilian or nondefense R&D, the WUMM simulations may understate the long-run benefits of lower defense purchases. We will apply a separate empirical methodology below to develop evidence on the relative contributions to technical advance of civilian R&D, federal defense and nondefense R&D, and the public non-military infrastructure.

Accommodated and non-accommodated runs

In simulating the effect of cuts in defense purchases, a decision must be made about the response of monetary policy. One of two extreme assumptions is usually employed. In the first case, which we call the non-accommodated case, the rate of money growth (M2 in our simulations) is assumed to be the same in the base and policy run. Monetary policy makes no attempt to adjust to the cut in defense and offset

its short-run adverse effect on aggregate demand in this case. In the second alternative, which we refer to as the fully accommodated case, monetary policy becomes more stimulative as defense spending is cut so that aggregate demand is maintained. In this case, the path for the unemployment rate will be approximately the same in the base and alternative paths. The latter assumption about monetary policy is more useful in tracing the long-run response to defense cuts as it eliminates the transitional demand effect and allows us to focus exclusively on changes in the economy's productive capacity. This is the assumption we employ in the simulations reported below.

The Long-run Growth Benefits of Defense Cuts

The long-run effects are estimated using the alternative defense path and an adjusted path for M2 that maintains the unemployment rate approximately equal to its value in the base case (the accommodated case). Figures 5.3 - 5.8 depict the effects on the level of GDP, private non-farm output, the private capital stock, the level of employment in the non-farm business sector, the real interest rate, and the deficit.

GDP declines in 1992 because the accommodation via easier monetary policy does not take hold immediately and therefore allows a small initial demand effect. Thereafter, however, GDP is higher in every year and the increase builds gradually over time, reaching \$37 billion, a 0.6% increase relative to the base case. The source of the increase in GDP is the increase in investment and hence the private capital stock. By 2001, investment in equipment is 23% higher than in the base case and investment in plant is 15% higher. As a result, the capital stock gradually increases, rising by 2 1/4% by 2001.

The second important supply side effect involves the transfer of government workers to the private sector. By 1997, federal employment has declined by 580,000 and business employment has increased by about the same amount. As a result of this transfer, the increase in private sector output is greater than the increase in GDP; output in the private non-farm business sector, for example, increases by \$60 billion by 2001, or by 1.3% relative to the base case.

The cumulative increase in GDP resulting from the defense cuts is \$165 billion, but the increment to the compound annual growth rate of GDP over the decade is only 0.06 percentage points and the increase in the compound annual growth rate for private non-farm business output is only 0.13 percentage points. If we are looking to increase our rate of trend growth from the current level of about 2 1/4% per year toward even the 3% rate averaged over the 1970's, the defense cutbacks are likely contribute only a small part of that objective.

Figure 5.3
REAL GDP
BASE VS. ALTERNATIVE 2

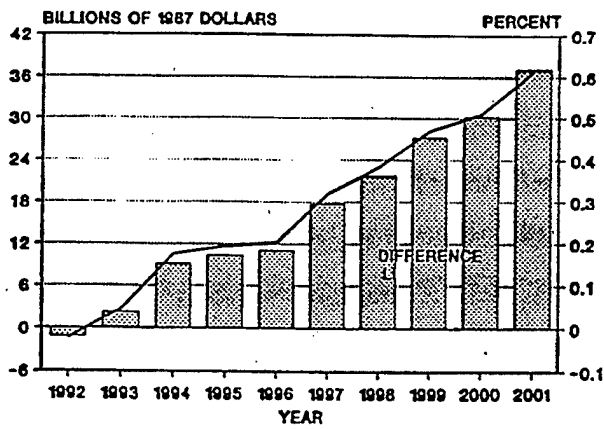


Figure 5.4
PRIVATE NON-FARM BUSINESS OUTPUT
BASE VS. ALTERNATIVE 2

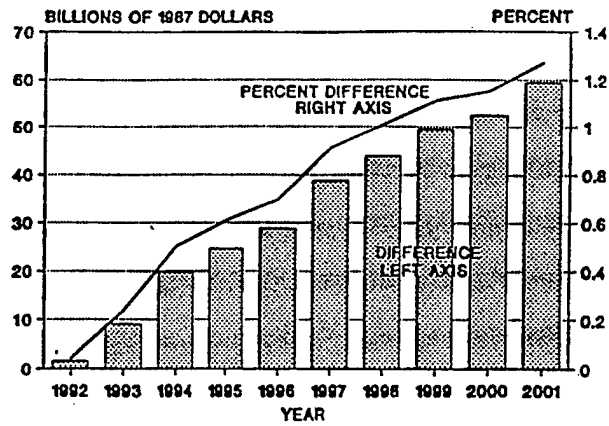


Figure 5.5
NON-FARM PRIVATE EMPLOYMENT
DIFFERENCE BETWEEN BASE & ALTERNATIVE 2

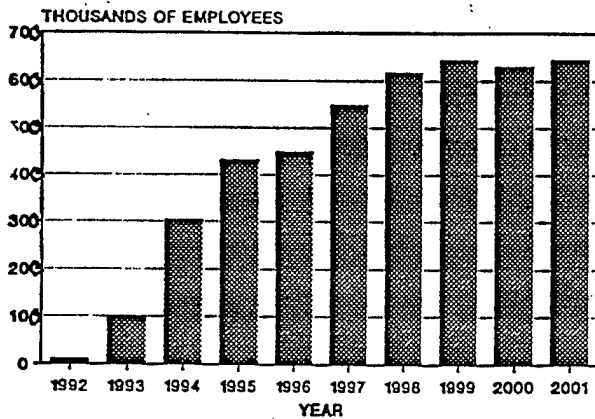


Figure 5.6
MILITARY EMPLOYMENT
DIFFERENCE BETWEEN BASE & ALTERNATIVE 2

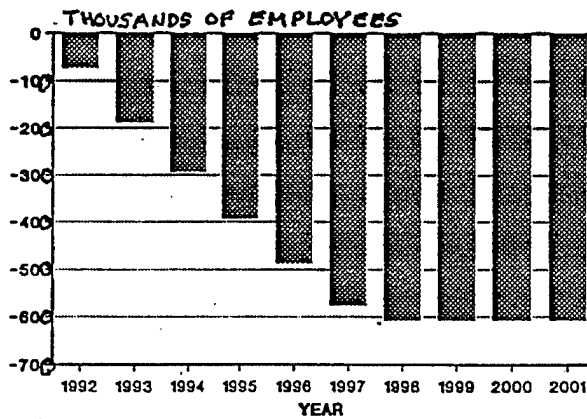


Figure 5.7
REAL CORPORATE BOND YIELD
DIFFERENCE BETWEEN BASE & ALTERNATIVE 2

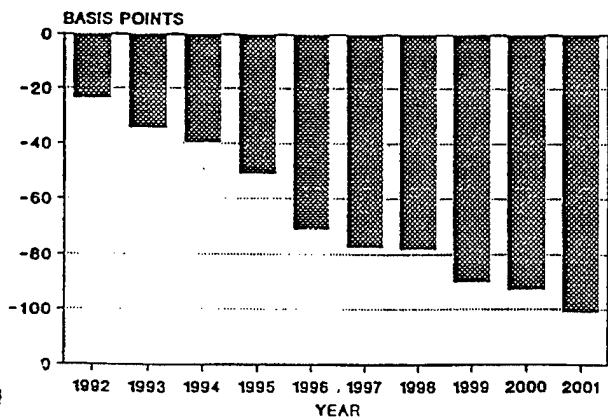
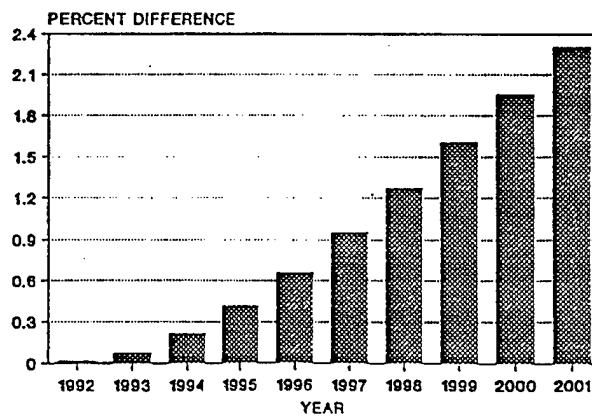


Figure 5.8
STOCK OF EQUIPMENT & STRUCTURES
BASE VS. ALTERNATIVE 2



Factors limiting the long-run increase in output

In our simulation, the effects of the defense cuts on productive capacity are attenuated in a couple of ways. First, the direct effect on national saving of cuts in defense purchases is partially offset by declines in both foreign and private saving. The decline in interest rates in the U.S. lowers the attractiveness of U.S. assets relative to those outside the U.S. and results in a depreciation of the dollar. The depreciation of the dollar in turn stimulates real net exports. The result is that some of the resources released by lower defense purchases are absorbed in production of exports and import-competing goods. Lower interest rates also stimulate residential construction, further absorbing resources. Finally, lower interest rates raise the value of equities and hence consumer net worth, stimulating consumption and lowering household saving. The net result is that only a portion of the resources flowing out of the government sector end up in private capital formation and hence provide the basis for an increase in the economy's productive capacity.

Second, the production function employed in WUMM implies that there is only a modest contribution to output from a given increment to the private capital stock. Assuming a Cobb-Douglas production function and constant returns to scale, the elasticity of output with respect to the capital stock equals the share of capital in national income, about 23% using the estimates from WUMM. This immediately implies a very small elasticity of output with respect to the capital stock. The production function in WUMM is CES rather than Cobb-Douglas, with an estimated elasticity of substitution of 0.6, implying an even smaller increase in the capital stock in response to defense cuts. Recent work by Romer⁹, in contrast, suggests that the elasticity of capital with respect to output may be significantly higher than implied by its share in national income, perhaps closer to 1 than to 1/4 percentage point, reflecting increasing returns to scale arising from the endogeneity of technical change.

Third, WUMM does not allow for additional supply effects that might result from some of the defense resources flowing into spending on the public infrastructure, or from a substitution of nondefense and civilian R&D for defense R&D.

In the next section we use direct estimates of production functions to develop the relative contributions of public infrastructure and civilian, defense and government nondefense R&D to the level of productive capacity. These estimates will also allow us to develop more direct evidence on the elasticity of output with respect to the capital stock.

Sources of Growth: A Production-Function Perspective

In this section we first introduce the data employed in the production function regressions and review the important trends the data. We focus on the decline in output and productivity growth in the 1970's and in the 1980's, and the degree to which the public capital stock and the R&D stocks may have contributed to the output and productivity slowdown. Finally, we look for evidence that the movements in defense purchases have influenced the growth in the public and nondefense R&D stocks.

Data sources

The output variable is the Gross Domestic Output of the non-farm business sector less housing, measured in 1987 dollars. The series is from Table 1.8 in the NIPA and the historical series was taken from the LHM&A data bank. It is the variable that best measures the output produced with the private non-farm non-residential capital stock, the measure of private capital stock employed in the regressions. The output data is available at this time only back to 1959. In order to compare our results with the recent literature on empirical production functions, generally estimated over the period from 1948 through the mid to late 1980's, we extended the business output series backward by assuming that the growth rate before 1959 in 1987 dollars would be the same as they were in the unrevised series in 1982 dollars.

The capital stock data is an annual series, measured at the end of the respective years. The source is John C. Musgrave, "Fixed Reproducible Tangible Wealth in the United States, Revised Estimates."¹⁰ To make the capital series comparable to the hours data and the output data, we take averages of the current and the previous year's values to form an average capital stock variable (KP). The labor input variable is hours worked in the non-farm business sector (LHMB). This series is from unpublished data from the Bureau of Labor Statistics ("Binder 60") and is taken from the LHM&A data bank.

We refer to two types of productivity data. Labor productivity is simply the ratio of output to hours (PROD). The growth rate for multi-factor productivity is the residual in the production function, that part of output growth that cannot be explained by the growth in labor and private capital. In deriving our series for multi-factor productivity, we assume the production function is Cobb-Douglas with constant returns to scale over labor and private capital. The share of capital assumed in deriving this series was .23, derived from estimation of the investment equations in WUMM and consistent with the national income data.

Public capital and various components of R&D used to explain the trends in labor and multi-factor productivity. The data on the stock of public non-military infrastructure also is from the Musgrave article referenced above. As in the case of the private capital stock, the public capital stock is measured at the end of the respective years and is therefore averaged with the previous year to construct a measure of the average public non-military capital stock (KG). Data on the civilian R&D flows and stock for 1948 - 1981 are from U.S. Bureau of Labor Statistics, *The Impact of Research and Development on Productivity Growth*¹¹ and for 1982 - 1990 are from John E. Jankowski, Jr., *Nations Patterns in R&D Resources: 1990*.¹² The deflators for the 1982 - 1990 period were calculated consistent with the methodology employed by the BLS for 1948 - 1981. Data for the federal R&D flows and stocks are based on R&D data provided by Mark Wasserman. The methodology underlying these series is developed in *Budget of the United States Government, Fiscal Year 1992*.¹³ These were converted into stocks using the same methodology as was used in deriving the civilian R&D stock: basic flows are assumed to enter the stock with a 5-year lag and applied and development R&D flows with a 2-year lag. Zero depreciation is assumed for the basic R&D stock and a 10% rate of depreciation is assumed for applied R&D stock.

The share of defense purchases in GDP is the ratio of nominal federal defense purchases to nominal GDP, both taken from the LHM&A data bank.

Trends in the data

Table 5.2 presents the compound annual growth rates of key variables over the 1960's, 1970's and 1980's and the average share of defense in GDP over each decade. The growth rate of private non-farm business output is about 4% over both the 1950's and the 1960's, but declines to 3% over the 1970's and to 2.6% over the 1980's. The decline in the growth rate of output has virtually nothing to do with the pattern in the growth in hours worked. Indeed, hours worked grows slightly more rapidly in the last two decades as the growth of output slows. As a result, the trend in labor productivity growth mirrors the trend in output growth.

The trend in private capital formation contributes to the decline in output growth over the 1970's and the 1980's, but only marginally, particularly in light of the usual assumption of a low elasticity of output with respect to the capital stock. The limited contribution from labor and capital growth to the slowdown in output growth leaves most of the explanation in the residual, multi-factory productivity growth.

Table 5.2 Trends in Output Growth and Sources of Output Growth

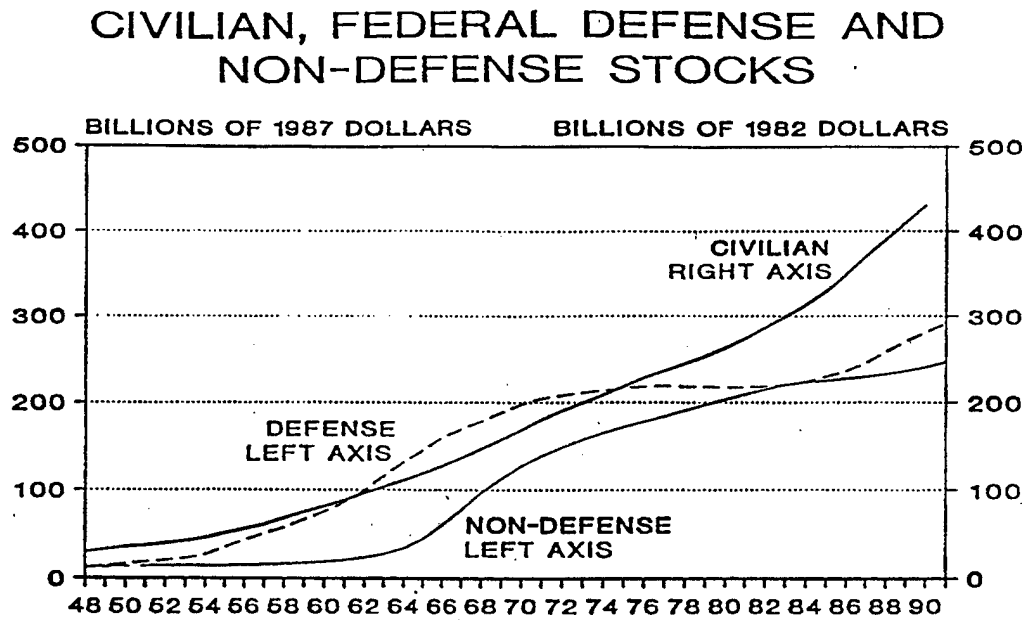
	1950's	1960's	1970's	1980's
Private non-farm business output	3.99	4.09	3.00	0.63
Private non-farm business productivity	2.68	2.39	1.30	0.82
Private non-residential capital stock	3.75	4.35	3.85	3.23
Private non-farm hours	1.28	1.66	1.68	1.80
Capital/labor ratio	2.44	2.65	2.14	1.40
Multi-factor Productivity	2.11	1.75	0.82	0.52
Public non-military capital stock	3.81	4.66	2.20	1.25
Civilian R&D stock	8.67	7.68	4.84	4.97
Federal defense R&D stock	16.31	10.95	1.48	2.16
Federal non-defense R&D stock	2.89	20.5	5.7	1.8
Defense share of GDP	10.2	8.5	5.8	6.1

The deceleration of growth in the 1970's is clearly dominated by the slowdown in the growth of multi-factor productivity. Output growth slows by 1.09 percentage points and multi-factor productivity by .93 percentage points. A slowdown in the growth of capital accounts for the rest of the slowdown in output growth in the 1970's. The further slowing in output growth over the 1980's is associated with a slowing in the growth of private capital and a further slowing in multi-factor productivity growth.

Table 5.2 also presents growth rates for four factors that might help to explain multi-factor productivity growth: the public non-military infrastructure and three components of the stock of R&D. The growth of the stock of public non-military infrastructure accelerates in the 1960's and then slows dramatically in the 1970's and further in the 1980's. Not surprisingly, this variable will perform very well in production function regressions as a complement to labor and the private capital stock.

The growth in the civilian stock of R&D also slows sharply in the 1970's and 1980's, relative to the 1950's and 1960's. It too should perform well in production function regressions. The federal defense R&D stock slows progressively over the 1960's and 1970's, then accelerates modestly in the 1980's. The growth of federal nondefense R&D stock accelerates sharply in the 1960's, then decelerates sharply in the 1970's, and further in the 1980's. The pattern in these variables does not suggest as large a role in

Figure 5.9



the explanation for the productivity slowdown as for the public capital stock or civilian R&D stock.

The share of defense spending in GDP declines in the 1960's and the 1970's and rises slightly in the 1980's. This pattern does not suggest that the percentage of the nation's resources absorbed in defense contributed to the slowdown in output growth in either the 1970's or the 1980's. Indeed, we can find little direct evidence that defense purchases in general or defense R&D flows crowd out either public infrastructure spending, civilian or federal non-defense R & D flows. Nevertheless, it is certainly true that reducing resources flowing into defense spending would free resources which policy could then redirect into either public infrastructure or non-defense R & D.

Defense R&D, Technology Transfers and Economic Growth: Results from Productivity Regressions

Significance of defense R & D

Throughout the postwar period federal funding of defense related R&D has constituted a large fraction of all R&D spending in the U.S. During most of this period, the fraction of total R&D allocated to defense followed an irregular downward trend, from a high of over 50% during the late 1950's, to 33% in the

mid-1960's, to 25% by 1980. The share going to defense then rose during the 1980's, peaking at 30% during 1985-6. It has since started to decline again.

During the 1979-87 defense build-up, virtually 100% of the increase in defense R&D occurred in applied research and development, funding a broad range of exotic, expensive weapons systems. Basic defense research was generally stagnant at around \$800 million (1987\$) during the 1980's, dropping to less than 3% of total federal defense R&D. At the same time, more than 100% of the decrease in federal nondefense R&D over the 1979-87 period was due to the decline in applied R&D, as basic nondefense research actually increased by 37% over this period.

At the level of overall productivity, the issue of the contribution of defense R&D has tended to be subsumed under two other issues: what are the relative contributions to productivity of civilian vs. federal R&D; and, how important is R&D in general in the explanation of the slowdown in productivity growth. After reviewing the empirical evidence, Griliches¹⁴, and separately Jorgenson¹⁵, both conclude that company funded R&D contributes more than federally funded R&D to productivity growth, but that R&D itself has not been a major contributor to the productivity slowdown. Our aim in this section is to narrow the focus of investigation and address the empirical role of defense R&D more directly. Working from a standard production function model, and making use of direct measures of the stocks of R&D as well the stocks of private and public capital, we estimate the relative contributions to productivity trends of civilian, defense and nondefense R&D stocks, as well as the stock of public capital. Due to limitations of space and the imposed scope of analysis, a number of pertinent issues have been left unaddressed, or at least unresolved. These issues form the basis for future research.

Methodological Issues

Labor and multi-factor productivity. We investigate two different productivity measures. The first is labor productivity (LPROD), defined as the natural log of the ratio of output to total hours over the non-farm business sector. The second is multiple factor productivity (LMFP), defined as the natural log of output minus a weighted average of the natural logs of private capital and labor where the weights are based on factor shares and sum to 1.0. The weights used are based on factor shares in the WUMM model, and are equal to .23 for capital and .77 for labor.¹⁶

Explanatory variables. The key explanatory variables are all in logarithm form. These include the private non-farm non-residential capital stock, LKP; total hours in the non-farm business sector, LL; the stock of public non-military capital, LKG; the stock of company-financed R&D, LCRD, and its basic research and applied research plus development components, LCRDB and LCRDA; the stock of federally funded defense R&D, LFDRD, and its basic and applied components, LFDRDB and LFDRDA; and the stock of federally funded non-defense R&D, LFNRD, and its basic and applied components, LFNRDB and LFNRDA. Data sources for the public capital and R&D variables were presented earlier. Attempt was made to control for cyclical fluctuations in productivity by means of the capacity utilization rate in manufacturing, CU.

First-difference vs. level regressions. Much of the recent work on productivity equations, including Aschauer and Munnell, has employed log level specifications of productivity equations. First differencing may, however, be a preferred technique, both because of collinearity among the levels of key explanatory variables and because of common trends in the explanatory and dependent variables. The correlation between the stocks of private capital and civilian R&D, for example, is .9899, and that between civilian R&D and public capital is .9948. In these circumstances it is difficult for regression estimation to apportion partial effects with a high degree of precision, particularly given a limited number of time series observations.

We also investigated the appropriateness of the level vs first difference specification by means of the Augmented Dickey-Fuller test.¹⁷ We reject at the 10% (or higher) significance level that LPROD and LMFP have no unit roots where the tests allowed for a constant term or constant plus trend terms. Similar tests on the first differences of these variables, significant at the 1% level for LMFP and the 10% level for LPROD, indicated that there is at most a single unit root. These tests imply that a first difference model is appropriate and this specification is therefore consistently applied below. The first-differenced variables are denoted by the prefix D (hence, LPROD becomes DLPROD and LMFP becomes DLMFP).

The use of deterministic trend variables. In level specifications, time trends are employed to capture the residual component of productivity growth, i.e., that portion that cannot be explained by the alleged causal variables. Often, multiple time trends are included to allow for breaks in the time trend. However there exists a high degree of collinearity between the trend variables and the capital and R&D variables. The correlation between TREND and LKP, for example, is .9985. Confounding the issue is the fact that deterministic trend variables will frequently be better proxies of technological effects than specific

technology variables measured with error. In the first difference specification, the time trend becomes the constant term. A dummy variable with zeros up to 1973 and ones thereafter, denoted DUM73, is used to capture a break in the trend beginning in 1973.

Returns to Scale

We investigate returns to scale in the regressions for labor productivity. Regression results for DLPROD are presented in Table 5.3. Alternative specifications are listed by column. Included in each specification, although not reported, is the change in manufacturing capacity utilization, DCU, which is always significant.

Column 1 of Table 5.3 presents the basic model that includes first differences of private and public capital and labor, DLKP, DLKG and DLL. The R^2 for this sparse specification is .563, respectable for a first difference regression. The elasticity of private capital is more than twice that of public capital, while the sum of the estimated elasticities over all three inputs in this unrestricted version is precisely equal to 1.00, identical with CRS. Constant returns to scale is imposed in column 2 by means of the variables DLKPL (DLKP - DLL) and DLKGL (DLKG - DLL), a restriction that cannot be rejected at virtually any level of significance. The coefficients of private and public capital are unchanged by the CRS restriction.

Next we test the effects of introducing deterministic time trends which, as noted, become the constant term C and the dummy variable DUM73 in the first-difference specification. In column 3 of Table 5.3, C and DUM73 replace DLKG. Both C and DUM73 are significant, and the R^2 has increased to .663. However, the coefficient of private capital has been driven to zero. The trend variables thus act as proxies for technological factors that otherwise are reflected in private capital.

The initial specification for DLPROD, without either time trends or R&D stock variables, exhibits CRS over private and public capital and labor. However, when either the deterministic time trends (constant and DUM73) or significant R&D stocks are included, CRS will generally be rejected, and decreasing returns over the three basic inputs will be indicated. This is demonstrated in column 5 of Table 5.3, where DLL has been added to the specification that includes C in column 4, thus relaxing the restriction of CRS, which is rejected at the 5% level.

Table 5.3 Dependent Variable: Change in γ of Labor Productivity(DLPROD)

Independent Var	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
DLL	-0.81**		-0.69**		-0.47*							
DLKP	0.55**		-0.0044									
DLKPL		0.55**		0.25	0.075	0.35	0.32	0.36	0.53**	0.30	0.54**	0.27
DLKG	0.26											
DLKGL		0.26*		0.37*	0.27	0.26*	0.25*	0.26*	-0.23	0.19	0.24	0.35**
DLCRD						0.082						
DLCRDB							0.096					
DLCRDA								0.078				
DLFDRD									0.013			
DLFDRDB										0.064*		
DLFDRDA											0.011	
DLFNRDB												0.046
Constant, C			0.032**	0.006	0.018*							
DUM73			-0.011**									
R ²	0.56	0.56	0.66	0.59	0.63	0.58	0.59	0.58	0.56	0.61	0.56	0.60
S.E.	0.011	0.011	0.0099	0.011	0.010	0.011	0.011	0.011	0.011	0.010	0.011	0.011
DW	1.99	1.99	2.16	1.94	2.02	1.97	1.98	1.97	1.99	2.09	1.99	2.00
Rho												

The question then arises, when, if ever, should CRS be imposed? While any approach involves a degree of arbitrariness, it appears that comparability of R&D stock comparisons across alternative specifications is improved if CRS over private and public capital and labor is assumed throughout. Hence, this is the procedure we follow.

The contribution of public capital to private productivity

We focus on the role of the public non-military capital stock because Aschauer among others has called attention to its powerful contribution to private productivity. In addition, this variable has a special importance in discussions about the effect of defense spending on macroeconomic performance, because resources now consumed in defense might be reallocated to the public infrastructure as defense spending is significantly reduced.

Shown in columns 1 and 2 of Table 5.4 are results for public capital, DLKG, based on regressions for DLMFP. As with Table 5.3 for DLPROD, the first difference in capacity utilization, DCU, is not shown, but is always included and is always significant at the 1% level. The constant term is shown only when included in the specification. Alone, public capital is highly significant. Including a constant (trend) term, DLKG remains significant, though its coefficient falls off somewhat. Including the trend break, DUM73, in addition to C, renders public capital insignificant. Column 3 presents the deterministic version of the model. It is interpreted as saying that MFP in the non-farm business sector grew at an average annual rate of 1.8% over the 1950-72 period, but only at a 0.5% rate during the 1973-90 period. These systematic determinants, together with capacity utilization, explain 62.2% of the variation in DLMFP, compared to 55.5% for public capital (with DCU) alone. At this point, it appears that the public capital stock does make a significant contribution to private productivity, but its contribution is difficult to disentangle from other factors that are captured in trend terms. We will return to this issue once we have added R&D stocks in the regressions.

Relative Contributions of civilian, defense and nondefense R & D

We investigate the relative contributions of alternative R&D sources by means of the DLPROD regressions. Columns 6 through 12 in Table 5.3 present results of including alternative R&D stocks in the CRS constrained model. Columns 6-8 present the results for the total stock of civilian R&D and its basic and applied components. In each case the coefficient of private capital is reduced to the .32 - .36 range, a loss of about 40% from its value where there are no competing factors. The coefficients of public

Table 5.4 Dependent Variable: Change in the of Multi-Factor Productivity(DLMFP)

Independent Var	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
DLKG	0.39**	0.32*										
DLKGL												
DLCRD				0.16*	0.20**							
DLCRDB						0.19**						
DLCRDA							0.20**					
DLFDRD				0.017								
DLFDRDB								0.11**				
DLFDRDA												
DLFNRD									0.085*			
DLFNDRDB				0.013						0.10**		
DLCOMB											0.27**	0.32*
Constant, C		0.0027	0.018**									-0.002
DUM73			-0.013**									-0.002
R ²	0.55	0.56	0.62	0.60	0.59	0.62	0.59	0.66	0.45	0.54	0.65	0.66
S.E.	0.012	0.012	0.011	0.012	0.012	0.011	0.012	0.011	0.014	0.013	0.011	0.011
DW	1.75	1.75	1.999	1.79	1.76	1.90	1.72	2.10	2.04	1.84	1.97	2.03

capital are remarkably stable. Despite their influence on private capital, none of the coefficients of civilian R&D stocks are significant.

Results of including defense R&D in the DLPROD specification are given in columns 9-11 of Table 5.3. The total defense stock is insignificant, and the coefficients of the private and public capital stocks are essentially unchanged from the basic model. The same story holds for the stock of defense applied research and development, shown in column 11 of Table 5.3. Finally, the stock of basic defense research is significant at the 5% level (column 10). As would be expected, inclusion of the significant basic defense stock reduces the estimated elasticity of private capital.

The relative significance of basic civilian and defense research must be viewed as tentative given the high degree of collinearity between the basic stocks of civilian and military R&D. The correlation between the *changes* in these two variables is .86. There is little reason to believe that the contribution to productivity would substantially differ between basic civilian and defense research. This proposition was tested with the DLPROD model. Equality of coefficients between the basic defense and civilian stocks could not be rejected at an arbitrarily high significance level.

The final column of Table 5.3 presents results for basic nondefense research. The estimated coefficient, .046, is somewhat lower than that for basic civilian or basic defense research, but is significant at the 6% level. However, neither total nor applied nondefense R&D is significant in explaining DLPROD.

Turning to the regressions for the growth of multi-factor productivity in Table 5.4, column 4 presents the results when all three total R&D stocks are included. Only the civilian stock is significant, the federal defense and nondefense stocks proving highly insignificant. When a regression is run using all three stocks of basic research, the story changes somewhat. Only the stock of basic defense proves significant. However, the hypothesis that the coefficients of basic defense and civilian research are equal cannot be rejected at a very high significance level. Thus, equality of basic research coefficients is confirmed for both productivity variants.

The importance of civilian R&D for multi-factor productivity is demonstrated in columns 5 - 7 in Table 5.4. The total stocks of civilian R&D, and its basic and applied R&D components, are all highly significant and remain so when a constant (trend term) is included. Moreover, the elasticities of civilian R&D and its components are relatively large (substantially in excess of federally funded R&D) and of

equal magnitude. The key role of civilian R&D for private productivity seems clearly established.

Results presented in column 8 in Table 5.4 suggest that federally funded basic defense research also strongly contributes to multi-factor productivity. The addition of a constant (trend) term has little effect on either the significance level or the coefficient of DLFDRDB. However, the stock of defense applied R&D also proves to be significant, even after including a constant term, in contrast to the results in the DLPROD regressions. The significance of defense applied R&D appears suspect based on other grounds. When basic and applied components are entered together, the basic stock remains significant with an unchanged elasticity, while the applied stock becomes insignificant, consistent with the findings in the DLPROD regressions.

Columns 9 and 10 in Table 5.4 present the results for the first differences in the stocks of total and basic nondefense R&D. Both the total and basic stocks are significant at the 1% level. However the R^2 's are relatively low, and introducing a constant (trend) term reduces the significance level of both stocks below 10%.

Due to collinearity, it is not possible to obtain any precision in the estimates of public capital together with a given R&D stock when both are included in the same DLMDFP regression. One or the other, or both, will be insignificant. To overcome this problem, we experimented with a combination variable constructed from a weighted average of the changes in the logs of public capital and the more significant R&D stocks. Two different variables were constructed, one that excluded basic nondefense R&D, and a second that included this stock. Based on performance we prefer the latter variable, which is defined as follows. $DLCOMB = .39*DLKG + .20*DLCRD + .11*DLFDRDB + .10*DLFNRDB$. The weights are equal to the coefficients of the corresponding variables when entered alone in basic regressions explaining DLMFP. Results of this experiment are presented in columns 11 and 12 of Table 5.4. The coefficient of DLCOMB reflects the extent to which the weights of the component variables must be shrunk due to collinearity. Note the relatively high R^2 's, exceeded by only one other regression in Table 5.4 (that for the basic defense stock alone). Note also that DLCOMB retains significance at the 5% level when the two trend variables are introduced, and that these variables have essentially zero coefficients. In effect, the combination variable leaves a zero trend residual to be explained.

Technology spillovers onto private capital

As noted above in the discussion of returns to scale in the labor productivity model, the coefficient of private capital in the basic model with CRS imposed over private and public capital and labor (column 2 of Table 5.3) is equal to .55, substantially in excess of typical estimates of capital's share of output. However, on the theory of endogenous technical change, a coefficient for private capital this large, or even larger, is to be expected. According to the theory of endogenous productivity growth as developed by Paul Romer¹⁸, technological change drives economic growth because while technology is available to all (in Romer's terminology, it is a "nonrival input"), technological improvements can be imbedded in new investment by the firm so that the benefits are at least partially appropriable, (they are "excludable"). This process generates both the inducement to invest and the mechanism by which investment reflects technological change. Explicitly including a variable that reflects this accumulated technology, i.e., an R&D stock, in a productivity regression will reduce the coefficient of capital by an amount that reflects the technology embedded in capital due to that R&D stock.¹⁹

All three basic stocks make a substantial contribution to the productivity of private capital. It is perhaps not surprising that these returns are approximately the same magnitude, given that the source of funding for basic research, unlike applied research and development, may not be very critical to their ultimate application. In contrast, only civilian applied R&D is relevant for private capital: federally funded defense and nondefense R&D appear to have no measurable impact. Most defense applied R&D may be too specialized for civilian application, while much nondefense applied R&D may be directed to "quality of life" outputs whose effect on private capital is likely to be quite tenuous and indirect.

Issue of defense R & D crowding out of other R & D or public capital

A number of useful stylized facts have emerged from the analysis of this section. First, basic defense R&D, currently around \$1 billion per year, while only a very small part of total defense R&D, appears to have a highly significant impact on both labor and total factor productivity. Second, applied defense R&D, approaching \$40 billion per year, appears to have little impact on productivity growth in the private sector after allowance is made for collinearity. The evidence here is stronger for labor productivity than for multi-factor productivity, but appears to hold for both. Third, we find that both basic and applied civilian R&D make a significant contribution to productivity, both directly and through their technological transfer to private capital. Fourth, basic nondefense research, by far the largest component of total

outlays for basic research from all sources (more than twice the combined total of civilian plus defense), was estimated to be significant for multi-factor productivity, and possibly significant for labor productivity. However, there is little evidence that applied nondefense R&D makes a significant contribution to private productivity. Finally, this study adds to the evidence that the public capital stock plays a significant role in explaining productivity trends.

Given these findings one can proceed in two alternative ways. The first is to ask whether and to what extent defense R&D has crowded out a productivity-enhancing factor, based on past evidence. Because of such factors as time lags, collinearity with time trends, and controlling for the external environment, the issue turns out to be a complex one, deserving an extended separate treatment. Thus, we offer at this point no definitive conclusions. Focusing on civilian R&D, a number of alternative models were estimated relating the flow of civilian R&D expenditures to current and lagged flows of defense R&D. The approaches included working with ratios to total private output or otherwise controlling for scale effects, including a measure of the share of overall defense spending, exploring alternative lag structures by means of polynomial distributed lags, and employing Granger causality tests. While the results were not clear-cut, and a number of issues remain unresolved, the evidence on balance did not indicate a negative impact of either total defense R&D, or its applied component, on civilian R&D.

A second way to proceed is to inquire what the impact would be on productivity of reallocating defense R&D outlays to a nondefense productive input. This is not to say that part of the existing stock of applied defense R&D can simply be transferred to the stock of civilian R&D or public capital. However, it is assumed that there is sufficient potential supply of technical resources in the sector receiving the additional funding to use the funds efficiently. We illustrate the potential for multi-factor productivity gain by making use of the estimates for the combination variable regression, column 11 of Table 5.4. Given the construction of DLCOMB and its estimated elasticity of .273, the net elasticities with respect to the stocks of civilian R&D, public capital, and nondefense basic research are .055, .107, and .027 respectively. Suppose that during the 1980's the stock of applied defense R&D, instead of increasing by 36.9% or 3.2% per year, had remained constant in real terms. Such an assumption is not entirely without foundation, since this is almost precisely what occurred during the decade of the 1970's. The result for the 1980's would have been that the stock of applied defense R&D would have increased by \$73.3 billion less (1987 dollars). Adding this amount in turn to the stocks of civilian R&D, public capital, and nondefense basic research would have increased their growth over the 1980's by 28%, 4%, and 110% respectively. Working with changes in the logs, and multiplying by the respective net elasticities, yields

increases in the growth of multi-factor productivity over the ten year period of 0.9%, 0.4%, and 1.3% respectively. While the magnitudes involved are relatively small in absolute terms, they represent significant fractions of the overall increase in multi-factor productivity over the decade.

Conclusion

If the reduction in federal defense purchases leads to a decline in overall federal spending and in the federal budget deficit, the resulting decline in real interest rates will encourage a reallocation of national resources toward private capital formation, and, as a result, the level of the economy's productive capacity will increase. Simulations reported here provide confirmation of this expectation, but also suggest that the resulting increase in productivity will be modest, certainly small relative to the productivity slowdown that occurred after the early 1970's.

We have also found, however, that there are other important linkages between defense spending and private productivity that are not captured in the WUMM simulations. If the defense cutback translates into significant reductions in expenditures in applied defense R&D and these resources are re-directed into some combination of civilian R&D and public infrastructure, a substantial further increment to private productivity could result. While there are spillovers from basic R&D to private productivity, only about \$1 billion currently is spent on basic defense research, compared to \$37.5 billion on applied defense R&D. Since there is little evidence that applied R&D contributes to private productivity, these funds would constitute a massive transfusion to productivity enhancing public capital and civilian R&D.

However, we must be careful not to overstate the potential gains. An increase in resources flowing into public infrastructure or civilian R&D could reduce the increase in private capital formation associated with lower defense purchases. Thus, one cannot simply add together the increases in private productivity from higher private capital formation from the model simulation and the potential increase from public capital formation and R&D from the productivity regressions.

1. Paul Kennedy, *The Rise and Fall of Great Powers*. New York: Random House, 1987.
2. Seymour Melman, *The Permanent War Economy*. New York: Simon & Schuster, 1985.
3. Lloyd Dumas, *The Overburdened Economy*. University of California Press, 1986.
4. Murray Weidenbaum, "Defense Spending and the U.S. Economy: How Much Change is in the Offing?" *Defense Economics*, vol. I, 1990: pp. 233 - 242.
5. See, for instance, Bruce Russett, *What Price Vigilance? The Burdens of National Defense*. Yale University Press, 1970; and Alan Mintz, "Guns vs. Butter: A Disaggregated Analysis," *American Political Science Review*, December 1989.
6. See David Aschauer, "Is Public Expenditure Productive?" *Journal of Monetary Economics*, vol 23, 1989: pp. 177 - 200 for a discussion of the contribution of the public capital stock to private sector productivity.
7. Congressional Budget Office, *The Economic Effects of Reduced Defense Spending*, Washington, D.C.: U.S. Government Printing Office, February 1992.
8. There are some differences in the base and alternative paths employed here, compared to the CBO study. First, in the CBO study, the base level of defense spending is smaller in 1991 than in either of the alternatives and is also smaller in 1992 compared to their alternative # 1. In our analysis, the base and alternative are identical in 1991 and the alternative is smaller than the base in every year thereafter. Second, in setting up our base and alternative simulations, we began by making the similar assumptions about real defense purchases, specifically constant real levels followed by constant share. However, we applied this assumption directly to outlays, while CBO allowed for constant real authority in 1992 and 1993, but declining real outlays, reflecting a declining trend in authority from 1985 through 1991. Also, because our inflation forecasts differ somewhat from CBO's, our resulting path of nominal defense purchases also differs from their's.
9. Paul Romer. "Endogenous Technical Change." *Journal of Political Economy*." vol. 98, 1990, pp. S71 - S102.
10. John C. Musgrave, "Fixed Tangible Wealth in the United States, Revised Estimates," *Survey of Current Business*, January 1992.
11. U.S. Bureau of Labor Statistics, *The Impact of Research and Development on Productivity Growth*, Washington, D.C.: U.S. Government Printing Office. September 1989.
12. John E. Jankowski, Jr., *National Patterns in R & D Resources: 1990*, National Science Foundation, May 1990.
13. *Budget of the United States Government*, Fiscal Year 1992, Washington, D.C.: U.S. Government Printing Office. 1991, pp. 35 - 49.
14. Zvi Griliches, "Productivity Puzzles and R&D: Another nonexplanation," *Journal of Economic Perspectives*, Fall 1988, pp. 9 - 22.
15. Dale Jorgenson, "Productivity and Postwar U.S. Economic Growth," *Journal of Economic Perspectives*, Fall 1988, pp. 23 - 42.
16. Other researchers have constructed measures of MFP using different weights. For instance, in a study of the effect of public capital on productivity, Munnell employs a weight of .35 for capital and .65 for labor. See Alicia Munnell, "Why Has Productivity Growth Declined? Productivity and Public Investment." *New England Economic Review*, Jan./Feb. 1990. Some experimentation with a MFP variable constructed with these weights suggested that there were no qualitative differences in findings and only minor qualitative ones.
17. D.A. Dickey and W.A. Fuller, "Distribution of the Estimators for Autoregressive Time Series with Unit Root." *Journal of the American Statistical Association*. vol. 74 (1979), pp. 427 - 431.
18. Paul Romer. "Endogenous Technical Change."
19. This is simply an application of the formula for the bias in the coefficient of an included variable (private capital), due to the omission of a relevant variable (R&D stock).

References

- Aschauer, David. 1989. "Is Public Expenditure Productive?" *Journal of Monetary Economics*, vol 23: 177 - 200.
- Budget of the United States Government, Fiscal Year 1992. 1991. 35 - 49. Washington, D.C.: U.S. Government Printing Office.
- Congressional Budget Office. 1992. *The Economic Effects of Reduced Defense Spending*. Washington, D.C.: U.S. Government Printing Office.
- Dickey, D.A. and W.A. Fuller. 1979. "Distribution of the Estimators for Autoregressive Time Series with Unit Root." *Journal of the American Statistical Association*. 74: 427 - 431.
- Dumas, Lloyd. 1986. *The Overburdened Economy*. Berkeley: University of California Press.
- Griliches, Zvi. 1988. "Productivity Puzzles and R&D: Another nonexplanation," *Journal of Economic Perspectives*. 9 - 22.
- Jorgenson, Dale. 1988. "Productivity and Postwar U.S. Economic Growth," *Journal of Economic Perspectives*. 23 - 42.
- Jankowski, John E. Jr., May 1990. *National Patterns in R & D Resources: 1990*, Washington, D.C.: National Science Foundation.
- Kennedy, Paul. 1987. *The Rise and Fall of Great Powers*. New York: Random House.
- Melman, Seymour. 1985. *The Permanent War Economy*. New York: Simon & Schuster
- Mintz, Alex. 1989. "Guns vs. Butter: A Disaggregated Analysis," *American Political Science Review*.
- Munnell, Alicia. 1990. "Why Has Productivity Growth Declined? Productivity and Public Investment." *New England Economic Review*.
- Musgrave, John C. 1992. "Fixed Tangible Wealth in the United States, Revised Estimates," *Survey of Current Business*, 72: 106 - 131.
- Romer, Paul. 1990. "Endogenous Technical Change." *Journal of Political Economy*. 98: S71 - S102.
- Russett, Bruce. 1970. *What Price Vigilance? The Burdens of National Defense*. Yale University Press.
- U.S. Bureau of Labor Statistics. 1989. *The Impact of Research and Development on Productivity Growth*. Washington, D.C.: U.S. Government Printing Office.
- Weidenbaum, Murray. 1990. "Defense Spending and the U.S. Economy: How Much Change is in the Offing?" *Defense Economics*. 1: 233 - 242.

MARJORIE M. REINHART

DEMOCRAT FOR STATE SENATOR - FIFTEENTH DISTRICT

35 Jefferson Road

Webster Groves, Missouri 63119

Telephone: (314) 962-0368

Statement to Defense Conversion Committee, August 20, 1992

The federal government has been employing people as a side effect of military expenditures. To lessen the impact of military cuts, repair our infrastructure, and strengthen our educational and social welfare institutions, the government must invest in society, thereby creating new jobs to replace those lost.

It can continue to do this indefinitely only because private ventures generate the increased value out of which taxes can be paid. Therefore the government's most important longterm contribution to a healthy economy is to create a favorable climate for profitable enterprises which produce useful commodities or services, maintain a positive environment for their employees and neighbors, and provide good jobs for the citizens of their communities.

Contrary to popular belief and despite the favored status enjoyed by powerful industries, most such jobs are supplied by companies which employ fewer than 500 people, and those companies are the real backbone of a stable economy.

Jack Stech
A Missouri firm, the Springfield Remanufacturing Company, featured on the PBS McNeil-Lehrer hour, is an example of the sort of enterprise we need to foster. They open all financial statements to employees, and everyone participates in setting the goals and standards on which stock options and bonuses are based. They have been extremely successful because employees are not "just doing their jobs" but are all pulling together for mutual benefit. The federal government can develop enabling legislation to encourage other small firms to commit themselves to these democratic management methods.

Appendix L

**OUTLINE OF TESTIMONY
DEFENSE CONVERSION COMMISSION HEARING**

**Margaret Gilleo
St. Louis, Missouri
August 20, 1992**

- I. Background of problem**
 - A. Historic conditions**
 - B. Government policy**
- II. The military environment in St. Louis**
 - A. Large contractors**
 - B. Small contractors**
- III. Recommendations**
 - A. Needs of the St. Louis area**
 - B. Retraining**
 - C. Government policy**

Appendix L

Margaret Gilleo is research director for the St. Louis Economic Conversion Project. She has conducted research on the defense industry in Saint Louis, with a focus on arms sales to Middle Eastern nations. She has studied the effects of defense cutbacks and has worked on recommendations for economic revitalization. She has had articles published in the St. Louis Post Dispatch, the St. Louis Economic Conversion Project Newsletter, the Junior League Magazine, and environmental publications. She frequently speaks to a variety of groups and lobbies in Washington, D.C., and in Jefferson City.

She serves as Chair of the Environmental Concerns Committee of the Archdiocesan Commission on Human Rights and Secretary of the Board of Directors of the United Nations Association of Greater St. Louis.

Ms. Gilleo holds a Bachelor of Arts degree from Maryville College in St. Louis, MO and an MBA from Columbia University, New York, NY.

Appendix M

Testimony for Public Hearing August 20, 1992 St. Louis

Before the U.S. Defense Conversion Commission

I am Joan Botwinick, former president and now a Board member of Adequate Housing for Missourians (AHM) a non-profit advocacy group in the St. Louis Metro area. We are trying to help mitigate the crisis in low income housing and homelessness in St. Louis. Thank you for the opportunity to present our views on the impact of defense spending cuts and what might be done to help our region adjust to the dislocation. There are many constructive ways to redirect the funds and to re-employ laid off defense workers. I regret that there has not been more advanced notice of this hearing because there are many more people with good ideas who would have been here.

In preparing this statement, I have checked with some of the shelter directors and others who try to provide affordable housing for our low income citizens. Our organization, which is a coalition of many groups in this area, has endorsed the ideas which I am presenting to you.

A number of families who have been laid off from McDonnell Douglas are now beginning to show up at homeless shelters. We know there will be more. Not only do we need to find housing and create new jobs for them, but we have a backlog of thousands of families who have been victims of bad economic conditions and have found no safety net to catch them. In the past decade there has been an increase of 11,000 more low income renters but a decrease of 30,000 affordable units for them to rent. About 30,000 affordable homes have also been destroyed during this period.

Money needs to be shifted into job training and job creation programs especially in the construction field. Small construction businesses need to be created with a representative proportion of minority owners and employees. New affordable housing must be built. Funds for rehabilitation of vacant housing are needed. Low income homeowners who have the capability to fix their homes should be given interest-free loans or grants. These measures will help rebuild deteriorating neighborhoods and give residents a stake in their community.

J. Botwinick. (cont.)

Since Community Development Block Grant funds (CDBG) have been cut by at least half in the past decade, these losses should be restored and Federal legislation must be changed to allow these funds to be used for rental subsidies to very low income families. In the past, the great majority of CDBG funds have been used for middle and upper income people.

Years ago our government estimated that we needed 640,000 more affordable units each year to house all our low income citizens. We have never come close to that figure. Meanwhile, much affordable housing has disappeared and we have more people in need. We are fighting to keep just 50,000 new Section 8 housing vouchers in the 1993 legislation for the entire country. With 29,000 families on waiting lists in the St. Louis area alone, you can see how inadequate that is. We have been lucky to get 100 new vouchers here each year.

Another program, Federal tax credits for low income housing should be extended to give incentives to build low income rental housing. Even though this program is not very cost effective, it is the only one we have right now. The HOME program should be generously funded to give families two year housing subsidies until they can get on their own feet.

The Executive Office of the U.S. Government has provided the information that from 1977 to 1987 Federal defense spending went up 166% while Federal housing assistance went down 62%.

A study released in June 1992 by the independent research group "Center on Budget and Policy Priorities" says that the affordable housing crisis in St. Louis is more serious than in the nation as a whole. Seven out of every eight poor households pays more than 30% of their income for rent. This amounts to 74,000 households. Only 28% of those families eligible for housing assistance actually receive it.

Where I live in St. Louis County, a supposedly affluent County, there are 250 families per month calling the homeless hotline. We hope the Federal Government will use its defense savings to help the cities rebuild and provide the safety net it once promised.

August 20, 1992

Fixx-up Program

A program of Adequate Housing for Missourians (AHM)

A Fixx-up Program for very low income homeowners is being coordinated by Adequate Housing for Missourians (AHM) a non-profit advocacy group in the St. Louis Metro area. It is looking for construction people who will volunteer their expertise for a few hours to fix a home repair problem.

The uniqueness of this program stems from the fact that 1) its target is the entire metro area not just one municipality or one county 2) it does not require everything in the home to be brought up to building code and 3) it involves the whole family in the process.

The individual low income homeowner becomes an important cog in the wheel of neighborhood improvement by being involved in the planning, perhaps doing some of the work, and possibly paying part of the cost. Sometimes the Fixx-up Program just pays for materials and the family does all the work.

Referrals generally come through social service agencies so that the income and true need of the family is verified. People hear about the program, then tell their friends in the neighborhood.

It is degrading for a family to live year after year with water leaking into the house because there are no funds to fix the roof. When there are people who care enough to provide some resources and fix the problem, we find that a family's morale is lifted and it wants to help others. This is one of the ways deteriorated neighborhoods get improved. When neighbors start helping neighbors and begin organizing, they become empowered and can be an effective force for positive change in the local community and in government.

To volunteer or donate funds, or for further information, call Joan Botwinick 727-6237 or Janet Becker 993-3398.

Joan Botwinick, Coordinator
Fixx-up Program

Janet Becker
8655 West Kingsbury
University City, Mo. 63124

TO WHOM IT MAY CONCERN:

As a member of the local Campaign for New Priorities, a national grass roots effort to pressure Congress and the President to reduce military spending by 50% over five years and invest those savings in domestic programs, I prepared a resolution and asked Mayor Janet Majerus of University City to introduce it.

On Monday, August 17, 1992, Mayor Majerus introduced the resolution and Councilman Robert Wagner read a statement supporting it. The City Council enthusiastically and unanimously passed the resolution, a copy of which is attached, along with Mr. Wagner's statement.

University City is the first municipality to consider such a resolution in the St. Louis area. A similar one has been prepared for the City of Florissant, and others will follow soon.

August 20, 1992

A RESOLUTION FOR NEW FEDERAL PRIORITIES

WHEREAS the security and well-being of the United States of America are dependent upon the well-being of our national economy;

WHEREAS nearly two-thirds of U. S. cities and states, large and small, are now in the midst of fiscal crisis;

WHEREAS there are great unmet needs for investment in the physical infrastructure of our cities and states and in the health, education and productivity of all Americans;

WHEREAS the dramatic improvements in relations between the East and the West have resulted in the opportunity to make major reductions in military spending;

WHEREAS the budget walls are scheduled to come down in 1993, thereby permitting military savings to be used for domestic programs;

THEREFORE, be it resolved that the City of University City calls upon the President and the Congress of the United States, early in 1993, to make the following changes in the federal budget for fiscal year 1994:

FIRST, for the President to propose and for Congress to pass reductions in military spending beginning in fiscal year 1994 of \$150 billion over the next five years, as recommended by defense experts and

SECOND, for the President and the Congress to agree to use the additional military savings to promote long-term economic growth by investing in education, infrastructure, cleaning the environment and assisting industries and communities in the orderly conversion from military to civilian production.

AND BE IT FURTHER RESOLVED that the City of University City shall charge the National League of Cities and the Missouri Municipal League to urge the enactment of federal legislation to reduce military spending and reallocate the savings back to America's cities, consistent with the principles described above.

Submitted by Janet Becker, resident
August 7, 1992

17 Aug. 1992

COMMENTS ON THE COUNCIL'S ECONOMIC
CONVERSION RESOLUTION

I support the Council's resolution and its vital message to this nation's leaders. It calls for an American strategic priority for the conversion of our unmatched industrial expertise in military defense systems towards rebuilding and enhancing our infrastructure and towards protecting our environment.

Our national leaders have long been sadly inattentive and irresolute in these sectors, while other world economic communities are already recognizing and responding to the needs of burgeoning global markets to accomplish these goals.

America has the resources, the industrial capacity and an underemployed, displaced work force. This resolution calls for the appropriate transitional reallocation of our government's spending to turn around our economy and revitalize our long suffering cities by investing in jobs that produce direct and essential impacts on our daily lives.

Robert G. Wagner
17 August 92

8/20/94

UNIVERSITY CITY

Dividend Of Peace Is Sought

By Michael Schneider

Post-Dispatch Special Correspondent

With the Cold War a thing of the past, University City wants officials in Washington, D.C., to declare a peace dividend — and pay it out now.

The City Council unanimously adopted a resolution Monday night "calling upon the president and the United States Congress to propose and pass federal legislation to reduce military spending and reallocate the savings to American cities."

Said Mayor Janet Majerus, "This adds our names to a growing list of cities that are lobbying for a transfer of such funds. This is a top priority."

Councilman Robert G. Wagner, 1st Ward, said the resolution is important because it sends a message to national politicians not to

See PEACE, Page 2

Peace

From page one

forget the cities. "Our national leaders have long been sadly inattentive," Wagner said. "This resolution is a call for the return of money to our cities."

The resolution calls for the president to make reductions in military spending of \$150 billion beginning in 1994 and extending for the next five years. In addition, the resolution calls for the president and Congress to use the military savings to invest in education, infrastructure, cleaning the environment and helping communities change to civilian production from military production.

Majerus said that to her knowledge, University City was the first municipi-

ality in the St. Louis area to pass such a resolution. But she said the city of Florissant is expected to pass a similar resolution in the near future.

University City residents spoke enthusiastically about the resolution. "The survival of our cities hangs on whether revenue is there to invest in the American people," resident Rosie Robertson said.

Another resident, Leonard Fichtenbaum, said the cities are the basis of the entire nation. "If we spend money like we've got a cold war going on, then of course we can't spend money on the cities," Fichtenbaum said.

In other business, a motion that would cut \$2,000 from travel funds and instead allocate the money for graffiti removal failed to attract a second supporter on the council and thus could not be put to a vote.

"I find it irresponsible for us to sit

here when we can't allocate \$2,000 to clean up the graffiti," said Councilman Byron R. Price, 3rd Ward, the lone supporter of the motion. "Fifty percent of the graffiti is gang-related."

Although Majerus said the council supported removing graffiti, she disagreed with Price that the travel budget should be used for that purpose.

"This council has cut the travel budget to the bones this past year," Majerus said. "These meetings are exceedingly important to this city. I'm sorry to say some members have had to pay for expenses out of their own pockets to attend these meetings."

Councilman Paul E. Schooner, 2nd Ward, said the \$2,000 allocation would not be a large enough sum to address the graffiti problem. Councilwoman Betty L. Thompson, 3rd Ward, suggested that funds for graffiti removal be

transferred from other parts of the city budget.

"We don't know what the graffiti signs mean," Thompson said. "But the gangs do, and we need to remove it."

Price vowed he would readress the issue at the council's next meeting. The council also held a public meeting on a proposed ordinance that could permit small, non-commercial trucks to park on the street. Several residents spoke against the proposal, claiming it would decrease real estate prices.

Bette Bush, a resident, said, "Trucks parked on the street give the appearance of a commercial area rather than a residential area."

However, resident Scott Skiple said small truck owners were getting an unfair deal from the city. "We just want to park in front of our homes," he said.

Please note: This column, in my opinion, has the best vision of how conversion to a peacetime economy can most effectively be implemented

Janet Becker

5/20/92

THE NEW YORK TIMES OP-ED MONDAY, MAY 18, 1992

Department of the Peace Dividend

By Ann Markusen

NEW BRUNSWICK, N.J.

When Congressional committees voted last week to reauthorize two store-financing for two Seawolf submarines and five B-2 Stealth bombers, they demonstrated the country's paralysis over the peace dividend.

Two more Seawolfs will cost \$3 billion. No one is arguing we really need the submarines; it's just argued that not building them would put 20,000 people in Connecticut out of work. Not spending \$4 billion on B-2's, another craft without a mission, would similarly hurt California. But if we build them, we'll be even worse off in a couple of years. The same workers will be unemployed, we'll have several more white elephants and we'll be deeper in debt.

No one in Washington knows what to do. The Administration seems to think that conversion from the cold war economy means new arms sales. Conservatives believe deficit reduction will solve the problem. Liberals renew their claims for industrial poli-

Ann Markusen, director of the Project on Regional and Industrial Economics at Rutgers, is co-author of "Dismantling the Cold War Economy."

cy and investment in the environment, housing, energy and transportation, and unions want jobs, whatever the source.

What's the solution? Create an independent Office of Economic Conversion, designed to be self-liquidating by the year 2000 and accountable to the President. The conversion office would develop policy, critique and strengthen Government programs and advise Congress, state and local governments. In addition, it could generate badly needed data on forthcoming cuts in defense spending and their probable impact.

What has been done so far is clearly not enough. In 1990, Congress appropriated \$200 million for conversion — \$150 million for workers, \$50 million for community economic development. The Defense Department was to disburse the money to the Labor and Commerce Departments.

The history of that small pot demonstrates why we can't leave adjustment to the Pentagon. Today, only half the money has made it to the Commerce and Labor Departments. Why? The Pentagon simply has no incentive to shepherd funds to needy places quickly. If the remaining \$100 million is not passed on, it will be used for Pentagon operations and maintenance.

Why should the Pentagon be asked to run a conversion program, anyway? Such a mission poses a clear conflict of interest — like asking former Soviet generals to dismantle their arsenals. The military's job is to

preserve the defense industrial base, not convert it. Besides, given its preference for performance over cost, it is simply out of its league when it comes to making a plant or facility commercially competitive.

Nor are the Labor or Commerce Departments prime candidates to lead us into a post-cold-war economy. The Labor Department helps workers only after they are laid off; it has

Create an agency to convert our cold war economy.

no experience in programs that keep people at their jobs. The Commerce Department's mission is theoretical — more appropriate, but its Economic Development Administration was decimated by Reagan cuts in the 1980's. State and local governments, strapped for cash, can't do it either. While a few states, notably Washington and Connecticut, have encouraged conversion, most have neither the will nor the capability.

Besides, successful conversion means more than just worker retraining or economic diversification for cities. The most challenging questions involve the way in which adjust-

ment policies are linked with new industries. Should conversion assistance be confined to communities and workers supported by defense contracts, or should industries hurt by defense-inflated wages and interest rates be eligible, too? Should workers be required to relocate to new jobs or should job creation be focused on where they live? Should new research and procurement programs in energy and the environment favor companies that depend on defense or be open to competition from all comers?

Conversion is a rolling stone gathering speed. This year's House budget plan allocates \$3 billion for conversion, \$1 billion of which would come from the \$274 billion defense budget. On close inspection, the non-defense portion turns out to be window dressing for various old priorities, including \$330 million that would go to National Aeronautics and Space Administration. It's a shame to call this conversion at all. And it's unclear whether the \$1 billion would again be routed through the Pentagon. But if so, it's bound to disappoint.

In the early 1980's, the Department of Defense planned the 50 percent increase in real defense spending. Because we haven't planned for the peace dividend, which could be \$400 billion or more over the decade, we can't seem to cut the budget at all. Congress should join the President in creating an independent agency to lead us through the process.

TESTIMONY OF RITA M. VOORHEIS
TO THE DEFENSE CONVERSION COMMISSION
August 20, 1992

As a resident of St. Charles County and a leader in organized labor, I am concerned about preserving high-paying jobs as Pentagon spending declines.

One in five households in St. Charles County contains a McDonnell-Douglas employee. We cannot afford to exchange good-paying jobs for minimum wage jobs or no jobs at all. We cannot afford to shift our economic base from skilled manufacturing jobs to unskilled service work.

Therefore, I am calling for the following steps to be taken:

1. Development of an "early warning system" to identify industries and specific factories that are in danger of closing. Then, setting up a means to work with those ailing factories to improve their productive capacity.
2. Improved research on the civilian application of military technology. One example of this is the use of metallic alloys designed for fighter wings that can also be used in the construction of bridges.
3. The formation of a federal-state partnership to develop strategies to preserve high-wage industrial jobs.

According to one study, our state's economy is the most vulnerable of that of any state to the decline of the arms industry.

The danger we face is the loss of manufacturing jobs to Mexico and other countries. The combination of the decline of military orders along with runaway plants is devastating our area's economy -- particularly because insufficient planning has been done to prepare for this.

This change in our region's economy is one of the biggest threats facing our county's schools. If we are jolted by more job losses, our tax base will erode to the point where we cannot adequately finance our children's education.

Our families cannot survive by relying on wage earners flipping hamburgers and working at convenience stores.

We need both a federal and state government that will anticipate these changes rather than react after the fact. Both are doing a poor job now.

Submitted by Rita Voorheis, 5672 Gutermuth Road, St. Charles, MO 63304, 314-441-0130.

NTIS does not permit return of items for credit or refund. A replacement will be provided if an error is made in filling your order, if the item was received in damaged condition, or if the item is defective.

Reproduced by NTIS

National Technical Information Service
Springfield, VA 22161

*This report was printed specifically for your order
from nearly 3 million titles available in our collection.*

For economy and efficiency, NTIS does not maintain stock of its vast collection of technical reports. Rather, most documents are printed for each order. Documents that are not in electronic format are reproduced from master archival copies and are the best possible reproductions available. If you have any questions concerning this document or any order you have placed with NTIS, please call our Customer Service Department at (703) 487-4660.

About NTIS

NTIS collects scientific, technical, engineering, and business related information — then organizes, maintains, and disseminates that information in a variety of formats — from microfiche to online services. The NTIS collection of nearly 3 million titles includes reports describing research conducted or sponsored by federal agencies and their contractors; statistical and business information; U.S. military publications; audiovisual products; computer software and electronic databases developed by federal agencies; training tools; and technical reports prepared by research organizations worldwide. Approximately 100,000 *new* titles are added and indexed into the NTIS collection annually.

For more information about NTIS products and services, call NTIS at (703) 487-4650 and request the free *NTIS Catalog of Products and Services*, PR-827LPG, or visit the NTIS Web site
<http://www.ntis.gov>.

NTIS

*Your indispensable resource for government-sponsored
information — U.S. and worldwide*



U.S. DEPARTMENT OF COMMERCE
Technology Administration
National Technical Information Service
Springfield, VA 22161 (703) 487-4650



PB93175925



BX

BIN: M72 04-25-97
INVOICE: 424259
SHIP TO: 1*89997
PAYMENT: CSH*CPDAG
